

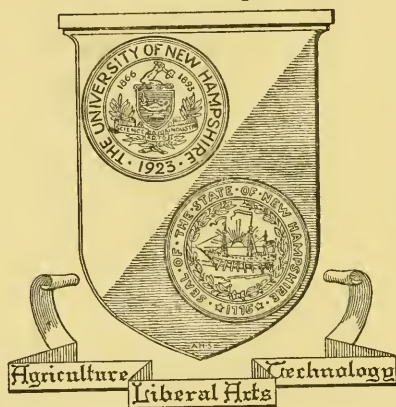
City of Manchester, N. H.



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James E. Dodge,

City Auditor.

FORTY-NINTH ANNUAL REPORT

OF THE

RECEIPTS AND EXPENDITURES

OF THE

CITY OF MANCHESTER

NEW HAMPSHIRE

FOR THE FISCAL YEAR ENDING

DECEMBER 31, 1894

TOGETHER WITH

OTHER ANNUAL REPORTS AND PAPERS RELATING
TO THE AFFAIRS OF THE CITY



MANCHESTER, N. H.

PRINTED BY THE JOHN B. CLARKE COMPANY.

1895.

352.27
M268
1894

CITY OF MANCHESTER.

IN BOARD OF COMMON COUNCIL.

AN ORDER to print the Forty-ninth Annual Report of the Receipts and Expenditures of the City of Manchester.

ORDERED, If the Board of Mayor and Aldermen concur, that the joint standing committee on finance be, and they hereby are, authorized to procure, for the use of the inhabitants of said city, the printing of the Forty-ninth Annual Report of the Receipts and Expenditures of the City of Manchester, including the reports of the joint standing committee on finance, the city auditor, the school board, and superintendent of schools, superintendent of water-works, water commissioners, engineer of fire department, police commissioners, overseers of the poor, trustees, librarian, and treasurer of the city library, committee on cemeteries, joint standing committee on city farm, city physician, city solicitor, city engineer, street and park commissioners, and such other matters relating to city affairs as said finance committee may direct, the expense thereof to be charged to the appropriation for printing and stationery.

IN BOARD OF COMMON COUNCIL. March 5, 1895.
Passed.

JOHN T. GOTT, *President.*

IN BOARD OF MAYOR AND ALDERMEN. March 5, 1895.
Passed in concurrence.

WILLIAM C. CLARKE, *Mayor.*

MANCHESTER CITY GOVERNMENT.

1894.

Mayor.

EDGAR J. KNOWLTON *	. . . . .	Office, City Hall
DAVID B. VARNEY †	. . . . .	Office, City Hall
BYRON WORTHEN ‡	. . . . .	Office, City Hall

Chosen at biennial election in November, 1890, and re-elected in November, 1892. Salary, \$1,800 per annum, payable quarterly. (Act of June, 1848, section 1. Chapter 223, Laws of 1883. Public Statutes, chapter 47.) Telephone at house and office.

Aldermen.

Act of June, 1848, section 1. Public Statutes, chapter 48.

Ward 1. Sam C. Lowell, 50 M. S. block, Mechanic street.

Ward 2. Alfred D. Maxwell, Goffstown road near Front street, Amoskeag.

Ward 3. George W. Reed, 483 Chestnut street.

Ward 4. John P. Cronin, 260 Manchester street.

Ward 5. Richard J. Barry, 232 Lake avenue.

Ward 6. Byron Worthen, 524 Lake avenue.

* Resigned May 10, 1894.

† Elected by board of aldermen May 10, 1894, and election declared illegal by court, July 10, 1894.

‡ Elected chairman board of aldermen May 10, 1894; qualified as mayor July 10, 1894.

Ward 7. James Lightbody, 61 Amoskeag Corporation, West Merrimack street.

Ward 8. Christian L. Wolff, 36 Clinton street.

Ward 9. William Marcotte, 506 Beauport street.

President of the Common Council.

Fred T. Dunlap, 107 Russell street.

Members of the Common Council.

Act of June, 1848, section 1. Public Statutes, chapter 48.

WARD 1.

Joseph Tait, 4 Boyden street.

John G. Rylander, 63 Stark Corporation, Canal street.

Frank X. Foster, 1382 Elm street.

WARD 2.

Fred T. Dunlap, 107 Russell street.

George E. Heath, River road north, at Hooksett line.

Charles R. Holbrook, 1966 Elm street.

WARD 3.

Joseph O. Tremblay, 18 Wilson road.

Charles H. Harvey, 507 Maple street.

David H. Burbank, 77 Ash street.

WARD 4.

Howard C. Holt, 411 Amherst street.

Bradley B. Aldrich, 337 Chestnut street.

Ludger E. Desrochers, 359 Amherst street.

WARD 5.

Daniel A. Murphy, 105 East Spruce street.
 John J. Twomey, 91 Cedar street.
 Edward F. Murray, 194 Lake avenue.

WARD 6.

Frank H. Libbey, 23 Elm street.
 George B. Rogers, 277 Laurel street.
 William G. Landry, 390 Cedar street.

WARD 7.

Willie D. Wheeler, 25 Grove street.
 Levi K. Snow, 86 Canal street.
 J. Adam Graf, 10 Middle street.

WARD 8.

Edward F. Scheer, 135 Milford street.
 Alexander J. McDonnell, 56 Dover street.

WARD 9.

John Gildard, 646 Main street.
 Joseph Dana, 672 Main street.
 Oscar Knoettner, 326 Main street.

Clerk of Common Council.

George L. Stearns, 58 Myrtle street.

Salary, \$200. (General Laws, chapter 46, sections 7-9. City Laws and Ordinances, page 33, chapter 6, section 11.)

City Clerk.

Nathan P. Kidder Office, City Hall

Salary, \$900. The city clerk, in addition to his salary, is in receipt of fees as registrar of births, marriages, and deaths, and as a recording officer for record

of mortgages on personal property, of attachments of real estate, of partnerships and assignments, and for recording various other legal papers. He also receives fees for issuing dog licenses, billiard and bowling alley licenses, for certifying records, and for various other matters.

These fees are established by the state legislature under various laws, and are estimated to be between \$2,100 and \$2,500 per annum. Chosen in convention of City Councils in January, annually. (Charter, section 22. Public Statutes, chapter 50. Act of 1849. City Laws and Ordinances, pages 42, 43, 68, 72, 73, 84, 86, 89, 114, 122, 123, 124, 166, 189.) Residence, 313 Manchester street.

City Auditor.

James E. Dodge Office, City Hall

Salary, \$1,000. Appointed by Mayor, and approved by Board of Aldermen, in January, annually. (Laws of 1889, chapter 287. City Ordinances, pages 44, 71, 83-88, 173.) Residence, River road north.

Auditor's Clerk.

Lizzie M. Cogswell Auditor's Office, City Hall

Salary, \$600. Residence, 1589 Elm street.

City Treasurer.

Sylvanus B. Putnam Office, City Hall

Salary, \$1,200. Elected in convention of City Councils in January, annually. (Charter, section 23. Act of 1856, section 4. General Laws, chapter 48, sections 3, 4. Act of 1859, section 4. City Laws and Ordinances, pages 36, 86-89, 170, 172.) Residence, 437 Amherst street.

Treasurer's Clerk.

Blanche E. Bullock Treasurer's Office, City Hall

Collector of Taxes.

George E. Morrill Office, City Hall

Salary, \$1,650 and fees. Elected by Mayor and Aldermen before May 1, annually. (Act of July, 1851. Act of June, 1859, section 6. Public Statutes, chapter 43. City Laws and Ordinances, chapter 33.) Residence, 740 Chestnut street.

Deputy Collector of Taxes.

Edwin C. Paul Collector's Office, City Hall

Paid by collector. Appointed by tax collector with approval of Mayor and Aldermen. (City Laws and Ordinances, chapter 33, section 3.) Residence, 416 Central street..

City Solicitor.

Edwin F. Jones Office, Patten's Block, 936 Elm street

Salary, \$800. Elected in convention of City Councils, in January, annually. (City Laws and Ordinances, chapters 4, 6, pages 70, 72.) Residence, 15 High street.

City Messenger.

John A. Barker Office, City Hall

Salary, \$700. Elected in convention of City Councils in January, annually. (City Laws and Ordinances, chapters 4, 6.) Residence, 49 Appleton street.

Joint Standing Committees.

On Finance.—The Mayor and Alderman Lowell; Councilmen Holbrook, Holt, and Rogers.

On Accounts.—Aldermen Lowell and Worthen; Councilmen Graf, Libbey, and Murray. (Meet Wednesday succeeding the 24th of each month. All bills must be left at the city auditor's office, properly approved, not later than the 20th of each month.)

On Claims.—Aldermen Reed and Maxwell; Councilmen Harvey, Twomey, and Gildard. (Meet third Friday in each month.)

On Streets.—Aldermen Worthen and Lowell; Councilmen Holt, Harvey, and Heath.

On Sewers and Drains.—Aldermen Wolff and Cronin; Councilmen Heath, Landry, and Burbank.

On Lighting Streets.—Aldermen Marcotte and Wolff; Councilmen Snow, Libbey, and Holt.

On Lands and Buildings.—Aldermen Barry and Lightbody; Councilmen Foster, Aldrich, and Dana.

On Fire Department.—Aldermen Cronin and Lowell; Councilmen Rogers, Tremblay, and Snow.

On Commons and Cemeteries.—Aldermen Lightbody and Barry; Councilmen Tait, Fellows, and Desrochers.

On Public Instruction.—Aldermen Maxwell and Reed; Councilmen Wheeler, McDonnell, and Knoettner.

On Water-Works.—Aldermen Lightbody and Marcotte; Councilmen Twomey, Dana, and Scheer.

On City Farm.—Aldermen Maxwell and Reed; Councilmen Rylander, Wheeler, and Murphy.

On House of Correction.—Aldermen Reed and Maxwell; Councilmen Desrochers, McDonnell, and Murphy.

On Military Affairs.—Aldermen Reed and Wolff; Councilmen Murray, Knoettner, and Burbank.

On Public Health.—Aldermen Maxwell and Marcotte; Councilmen Libbey, Aldrich, and Gildard.

Standing Committees.

BOARD OF ALDERMEN.

On Enrollment.—Aldermen Barry and Reed.

On Bills on Second Reading.—Aldermen Wolff and Lowell.

On Market.—Aldermen Maxwell and Reed.

On Marshal's Accounts.—Aldermen Cronin and Barry.

On Licenses.—Aldermen Worthen and Marcotte.

On Setting Trees.—Aldermen Worthen and Lowell.

On Special Police.—Aldermen Lightbody and Marcotte.

COMMON COUNCIL.

On Election Returns.—Councilmen Tremblay, Rylander, and Scheer.

On Bills on Second Reading.—Councilmen Holbrook, Tait, and Rogers.

On Enrollment.—Councilmen Foster, Aldrich, and Murphy.

City Physician.

Frederick Perkins Office, 895 Elm street

Salary, \$200. Elected by City Councils in convention in January, annually. (Laws of 1870, chapter 99. City Ordinances, chapter 6, sections 29, 30.)
Residence, 490 Lake avenue.

City Engineer.

Winfred H. Bennett Office, City Hall

Salary, \$1,200. Chosen by City Councils in convention in January, annually. (City Ordinances, chapter 6, sections 33, 34.)

Water Commissioners.

(Chapter 70, Laws of 1871. City Ordinances, chapter 36, and Laws of 1891, chapter 26, page 319, act approved March 31, 1891. Chapter 183, Laws of 1893.) One commissioner elected annually by Mayor and Aldermen, in the month of September, for a term of six years. Office at Court House, corner Franklin and West Merrimack streets. Telephone at office, and at pumping station.

The Mayor, *ex officio*.

Charles H. Manning, term expires January, 1895.

Andrew C. Wallace, term expires January, 1900.

Alpheus Gay, term expires January, 1899.

Henry Chandler, term expires January, 1898.

James A. Weston, term expires January, 1897.

Charles T. Means, term expires January, 1896.

Alpheus Gay, chairman.

James A. Weston, clerk. Salary, \$100. Chosen by the board of commissioners.

Superintendent of Water-Works.

Charles K. Walker . Office, Court House, Franklin street

Salary, \$2,000. Chosen by water commissioners annually. Residence, 68 South Main street, West Manchester.

Clerk of the Water-Works.

Arthur E. Stearns . Office, Court House, Franklin street

Salary, \$1,500. Chosen by water commissioners annually. Residence, 421 Hanover street.

Engineer at Old Pumping Station.

Josiah Laselle. Salary, \$700, rent, fuel, and use of land.

Chosen by water commissioners annually.

Engineer at New Pumping Station.

Henry A. Donaway. Salary, \$2.50 per day, rent, and fuel.

Justice of the Police Court.

Nathan P. Hunt, court room at Police Station, corner Manchester and Chestnut streets.

Salary, \$1,500. Appointed by the Governor, with the advice of the Council. (General Laws, chapter 215; chapter 163, sections 17, 18, 19, of the Laws of 1878, as amended by chapter 236, Laws of 1881. Public Statutes, chapter 211.) Residence, 747 Union street.

Associate Justice of the Police Court.

Isaac L. Heath Salary, \$300 per annum

Appointed by the Governor, with advice of the Council. (Chapter 215, General Laws, sections 2-14. Public Statutes, chapter 211. Chapter 296, Laws of 1893.)

Clerk of the Police Court.

John C. Bickford Salary, \$600

Appointed by the justice of the police court. (Chapter 163, sections 17-19, General Laws, amended by chapter 236, Laws of 1881. Public Statutes, chapter 211.) Residence, 15 Ash street.

Police.

The members of the police force are appointed by the Police Commissioners, and hold their commission during good behavior. They are, by virtue of their appointment, constables and conservators of the peace, and their jurisdiction extends throughout the city. (Chapter 253, section 5, General Laws; chapter 303, Laws of 1887; chapter 202, Laws of 1893.) Police station, at the corner of Chestnut and Manchester streets.

Police Commissioners.*

Isaac L. Heath,† term expires January, 1900.

Noah S. Clark,‡ term expires January, 1898.

Frank P. Carpenter, term expires January, 1896.

Chief of Police.

Michael J. Healy Office at Police Station

Salary, \$900. Residence, 304 Central street. Telephone at house and office.

* See chapter 202, Laws 1893.

† Chairman.

‡ Clerk.

Deputy Chief of Police.

John F. Cassidy Office at Police Station
Salary, \$800. Residence, 415 Manchester street.

Captain of the Watch.

Lafayette Tebbetts. Salary, \$2.50 per day. Residence, 222
Laurel street.

Sergeant.

Henry McAllister. Salary, \$2.50 per day. Residence, 852
Elm street, room 18.

Day Police.

SALARY, \$2.25 PER DAY.

Randall W. Bean, 77 Ash street.
Frank E. Bourassa, 552 Lincoln street.
Levi J. Proctor, Candia road, corner Massabesic street.
Lucius M. Rollins, 437 Laurel street.
Olaf Ring, 29 Upton's block, Elm street.
Benjamin F. Lake, 496 Chestnut street.
John T. O'Dowd, Laurel street.
Florence Sullivan, 213 Cedar street.

Night Patrol.

SALARY, \$2.25 PER DAY.

Henry A. Burns, 451 Manchester street.
Theodore Flodin, 232 East High street.
George A. Lovejoy, 99 Orange street.
John D. Healy, 129 East Spruce street.
Frank W. Warden, 400 Belmont street.

Oscar R. Pochlman, 386 Dubuque street.
 Horace L. Robbins, 539 Chestnut street.
 Albert Russell, 36 School street.
 Thomas E. Steele, 116 Pearl street.
 Fred A. Stockwell, 300 Lowell street.
 Leon E. Magoon, 355 East Spruce street.
 Edgar A. Young, 371 Merrimack street.
 Joseph Archambeault, 382 Cedar, corner Maple street.
 James S. Butler, 41 Cedar street.
 John C. Badger, 325 Amherst street.
 Peter Callaghan, 122 Jewett street.
 John J. Connor, 155 Pine street.
 John T. Foley, 224 Shasta street.
 Elmer A. Gibbs, 300 Lowell street.
 Kenneth McDonald, 305 Chestnut street.
 Frank P. Moore, 47 Elm street.
 William Steel, 116 Pearl street.
 Francois Reinville, 140 Kelley street, West Manchester.
 Edwin A. Hutchins, 11 Mill street, Amoskeag.
 Gilbert A. Sackett, 784 Chestnut street.
 John T. Welch, 1263 Elm street.

Janitor of Station.

Frank P. Wiggin. \$1.75 per day. Residence, 21 Laurel avenue.

Matron.

Miss A. B. Brown. \$415 per annum. Residence, 329 Chestnut street.

School Committee.

Chosen at the biennial election in November, 1892; Mayor and president of the Common Council members *ex officio*. The board of school committee

choose the clerk of the board, the superintendent of public instruction, the truant officer, and the teachers in the public schools, and determine their salaries. They have charge of the repairs of schoolhouses, to a limited extent, and the purchase of free text-books, and other supplies, and are limited by the appropriation of the City Councils. The salary of the committee is \$10 each.

WARD 1.

Charles D. Sumner, 22 Stark street.
Walter H. Lewis, 32 Stark street.

WARD 2.

George H. Stearns, 1934 Elm street.
Alvin T. Thoits, 63 Harrison street.

WARD 3.

George D. Towne, 170 Lowell street.
Louis E. Phelps, 103 Walnut street.

WARD 4.

Stephen B. Stearns, 464 Amherst street.
Edwin L. Richardson,* 304 Manchester street.
John W. Mears.†

WARD 5.

James P. Slattery, 217 Central street.
William J. Sughrue, 51 Spruce street.

WARD 6.

Frank T. E. Richardson, 481 Lincoln street.
George W. Dearborn, 131 Massabesic street.

WARD 7.

Marshall P. Hall, 26 Market street.
* Edward B. Woodbury, 1 Pleasant street.

* Died. † Elected to fill vacancy.

WARD 8.

Luther C. Baldwin, 157 Milford street.

Josiah G. Dearborn, 157 Milford street.

WARD 9.

Edward J. Doherty, 336 Beauport street.

Scott E. Sanborn, 46 Sullivan street.

Fred T. Dunlap, *ex officio*, 107 Russell street.

Edgar J. Knowlton,* chairman, 533 Lake avenue. Office, City Hall.

David B. Varney.

Byron Worthen.

Edward B. Woodbury, clerk ; salary, \$150 ; 1 Manchester Corporation, Pleasant street.

Superintendent of Public Instruction.

William E. Buck Office, City Hall,

Salary, \$2,300. Residence, 324 Myrtle street.

Superintendent's Clerk.

Fannie L. Sanborn Residence, 161 Hanover street

Salary, \$500.

Truant Officer.

Samuel Brooks† Office, City Hall

Curtis W. Davis Office, City Hall

Salary, \$750. Residence, 849 Chestnut street.

* Resigned. † Died.

Assessors.

One assessor from each ward chosen at the biennial election in November. Paid \$2.50 each, for each day while employed in the assessment and abatement of taxes. Office, City Hall. (Charter, section 25. Public Statutes, chapter 48, section 1; chapter 50, section 4; chapter 49, sections 10, 11, 12. City Ordinances, chapter 6, section 26.) Assistant assessors, not exceeding six, chosen by the City Councils.

- Ward 1. Henry Lewis, 32 Amoskeag Corporation.
- Ward 2. John E. Stearns, 58 Myrtle street.
- Ward 3. David O. Fernald, 384 Lowell street.
- Ward 4. Harrison D. Lord, 387 Hanover street.
- Ward 5. George F. Sheehan, 85 Cedar street.
- Ward 6. George H. Dudley, 159 Laurel street.
- Ward 7. William T. Rowell, 14 Manchester Corporation.
- Ward 8. Frank N. Daniels, 137 Milford street.
- Ward 9. Lawrence F. Bradley, 568 Main street.

CHAIRMAN OF ASSESSORS.

David O. Fernald Office, City Hall

CLERK OF ASSESSORS.

George H. Dudley Office, City Hall

Inspectors of Check-Lists.

One in each ward, chosen at the biennial election in November. Compensation, \$2.25 per day for each day actually employed. Office, City Hall. (Laws of 1878, chapter 163, sections 5, 6, 7, 9, 10, 11, 12, 13, 14, 16, and City Ordinances, chapter 14, section 9.)

- Ward 1. George C. Kemp, 40 Machine Shop block.
- Ward 2. Charles B. Tucker, 777 Union street.
- Ward 3. David O. Fernald, 384 Lowell street.
- Ward 4. Harrison D. Lord, 387 Hanover street.
- Ward 5. John F. Quinn, 190 Chestnut street.
- Ward 6. Albert J. Peaslee, Cohas avenue, near Water-Works.
- Ward 7. Joseph A. Foster, 42 Amoskeag Corporation.
- Ward 8. Charles C. Tinkham, 9 Parker avenue.
- Ward 9. John B. Bourque, 22 Wayne street.

Overseers of the Poor.

One in each ward, chosen at biennial election in November. The Mayor is a member *ex officio*. Compensation, \$25 per annum, each; clerk of the board, \$100 per annum, determined by City Ordinances, chapter 14, section 18, as amended by Ordinance of August 5, 1890. Meet third Wednesday of each month in City Hall building.

Ward 1. William H. Maxwell, clerk, 20 Amoskeag Corporation, Stark street.

Ward 2. Thomas L. Quimby, railroad station, foot West Salmon street.

Ward 3. Benjamin F. Garland, 28 Linden street.

Ward 4. George S. Holmes, 296 Hanover street.

Ward 5. Patrick Costello, 106 East Spruce street.

Ward 6. Charles Francis, Candia road, East Manchester.

Ward 7. William Marshall, 72 Amoskeag Corporation, West Merrimack street.

Ward 8. Charles S. McKean, 495 Granite street.

Ward 9. Frank I. Lessard, 362 Dubuque street.

Edgar J. Knowlton, *ex officio*, office, City Hall.

David B. Varney, *ex officio*, office, City Hall.

Byron Worthen, *ex officio*, office, City Hall.

Board of Health.

(City Ordinances, chapter 14, section 10, as amended. Laws of 1885, chapter 165; Laws of 1887, chapter 227; Public Statutes, chapters 108, 109, 110.) One member appointed by the Mayor in January of each year, to hold office for a term of three years. Salary, \$200 each per annum. Office, Court House, West Merrimack, corner of Franklin street.

Clarence W. Downing, M. D. Term expires first Monday in February, 1896.

Joseph B. Sawyer, clerk, civil engineer, 356 Hanover street. Term expires first Monday in February, 1895.

Cornelius F. Starr, M. D., 49 Manchester street. Term expires first Monday in February, 1897.

Herbert S. Clough, sanitary inspector, Hanover-street road. Office, Court House, Merrimack, corner of Franklin street.

John F. Looney, sanitary inspector, 164 Auburn street. Office, Court House, Merrimack, corner of Franklin street.

Richard J. Barry, sanitary inspector. Office, Court House, Merrimack, corner Franklin street.

Fire Department.

The chief engineer and four assistant engineers are chosen annually, in the month of January, by a majority of the City Councils in convention. The salary of the chief engineer is \$1,300 per annum; the assistant engineers, each \$125 per annum. They exercise the powers and perform the duties of firewards. The said engineers constitute the board of engineers, and elect a clerk whose compensation is \$25 a year. The annual compensation of the call members of the several hook-and-ladder, hose, steam fire engine, and chemical engine companies is as follows: Foremen, each \$115; assistant foremen, each \$110; clerks, each \$110; engineers, each \$135; assistant engineers, each \$105; all other members, each \$100; payable in equal semi-annual payments, on the first of January and July. (Laws of 1870, chapter 99. General Laws, chapter 106. City Ordinances, chapters 6 and 12.) Five members are permanently employed as engineers at \$76.25 per month each, and nineteen as drivers at \$68.33 $\frac{1}{3}$ per month each, and receive no compensation as call members. Members of the companies are appointed by Board of Mayor and Aldermen in the month of February, annually, on list presented by the board of engineers. The officers of each company are appointed by the board of engineers.

Chief Engineer.

Thomas W. Lane . . . Office, Central Station, Vine street
Residence, 1937 Elm street. Telephone at house and office.

Fred S. Bean, clerk, 102 Orange street.

Ruel G. Manning, 52 Douglas street, West Manchester.

Eugene S. Whitney, River road north, corner West street.

Clarence D. Palmer, 366 Lake avenue.

For further information see chief engineer's report.

Trustees of City Library.

(Laws of 1854, chapter 1588. See contract with Manchester Atheneum, printed on pages 107 and 108 of City Report for fiscal year ending January 31, 1855.) Board of seven trustees, one of whom is elected by Aldermen and board of trustees in joint convention in September, annually. Term of service, seven years; no salary. Two additional trustees, Mayor, and president of Common Council, *ex officio*.

Lucien B. Clough, term expires October 1, 1895, 181 Walnut street.

Nathan P. Hunt,* term expires October 1, 1894, 774 Union street.

Herman F. Straw, term expires October 1, 1900, 607 Chestnut street.

Walter M. Parker, term expires October 1, 1899, West Webster street, corner Elm.

Isaac W. Smith, term expires October 1, 1898, 1855 Elm street.

Moody Currier, term expires October 1, 1897, Ash street, corner Myrtle.

C. D. McDuffie, term expires October 1, 1896, Ash street, corner Myrtle.

Edgar J. Knowlton, *ex officio*, 533 Lake avenue.

David B. Varney, *ex officio*.

Byron Worthen, *ex officio*.

Fred T. Dunlap, *ex officio*, 107 Russell street.

Board of Street and Park Commissioners.

The City Councils in joint convention, biennially, elect one member of said board for a term of six years. Not more than two members can be of the same political party. Said board, consisting of three members, has full charge, management, and control of the building, constructing, repairing, and maintaining of all the streets, highways, lanes, sidewalks, bridges, and public sewers and drains, and public parks and commons. (See Laws of 1893, chapter 264.) Office, City Hall building. Open from 8 to 12 A. M., 2 to 5 P. M. Regular

* Re-elected for seven years.

meeting of the board at 2 o'clock P. M., each day. Salary of each member, \$600 per year, payable quarterly, and each are allowed \$150 annually for horse hire.

George H. Stearns, chairman, term expires 1898.

Leonard P. Reynolds, term expires 1896.

Horace P. Simpson,* term expires 1894.

Clerk.

Appointed by commissioners. Salary, \$75 monthly.

Allan E. Herrick, 91 Russell street, corner of Prospect.

Assistant Clerk, Julia F. Stearns.

City Weigher.

Elected annually in convention of City Councils. Salary, \$400 per annum; all fees for weighing returned monthly to city treasurer with sworn statement. Stationed at city scales on Franklin street.

William Bailey Office, city scales

Residence, 74 Main street, West Manchester.

Sealer of Weights and Measures.

Albert T. Barr.

Elected annually in January by City Councils in convention. Paid by fees. (Section 25, chapter 43, Public Statutes, and chapter 125, Public Statutes.)

Fish and Game Wardens.

(Public Statutes, chapter 130.) Elected by City Councils in convention.

John C. Higgins, 143 Orange street.

George A. Clark, 304 Central street.

* Re-elected for six years.

Samuel S. James, 184 Laurel street.

William C. Clarke, 711 Pine, corner North street.

C. R. Hodge, 574 Hall street.

Trustees of Cemeteries.

(City Ordinances, chapter 39, sections 1, 2, 3, 4.) Two trustees elected by City Councils in convention in January, annually, for the term of four years. Sub-trustees appointed by board of trustees.

George W. Bacon, 65 Stark Corporation, Canal street, term expires January, 1895.

William H. Huse, Mammoth road, term expires 1895.

John L. Sanborn, 25 Market street, term expires 1898.

Bushrod W. Hill, 299 Hanover street, term expires 1898.

Stillman P. Cannon, 43 Elm street, term expires 1897.

James E. Bailey, Goffstown road near Front street, term expires 1897.

Charles H. Bartlett, 25 High street, term expires January, 1896.

John P. Young, 346 Merrimack street, term expires January, 1896.

S. B. Putnam, clerk and treasurer, 437 Amherst street.

Sub-Trustees of Cemeteries.

VALLEY CEMETERY.

Alderman Richard J. Barry, 232 Lake avenue.

Councilman Ludger E. Desrochers, 359 Amherst street.

John L. Sanborn, 25 Market street.

Bushrod W. Hill, 299 Hanover street.

Stillman P. Cannon, 43 Elm street.

PINE GROVE CEMETERY.

Alderman James Lightbody, 61 Amoskeag Corporation, West Merrimack street.

Councilman Joseph Tait, 4 Boyden street.
George W. Bacon, 66 Stark Corporation, Canal street.
John P. Young, 346 Merrimack street.
Charles H. Bartlett, 25 High street.

AMOSKEAG CEMETERY.

Councilman J. Adam Graf, 10 Middle street.
James E. Bailey, Goffstown road near Front street.
William H. Huse, Mammoth road, East Manchester.

SUPERINTENDENT OF PINE GROVE CEMETERY.

Byron A. Stearns. Office and residence at the cemetery.
Telephone.

SUPERINTENDENT OF VALLEY CEMETERY.

Charles H. G. Foss. Office at the cemetery ; residence, 267
Lake avenue.

TRUSTEES OF CEMETERY FUNDS.

James A. Weston, chairman, 621 Maple street.
Person C. Cheney, Harrison street, corner Elm.
Edgar J. Knowlton, *ex officio*, 533 Lake avenue.
Byron Worthen, *ex officio*, 424 Lake avenue.

Inspector of Milk.

H. F. W. Little . . . Office, rear of 13 Lowell street
Residence, 385 Lowell street. Term expires February 1, annually. (Public Statutes, chapter 127.) Appointed by Mayor and Aldermen. Salary, \$300 per annum.

Inspector of Buildings.

Thomas W. Lane . . . Office at Central Fire Station
Residence, 1937 Elm street. Appointed by Board of Mayor and Aldermen, biennially, in February. Salary, \$100 per annum. (City Ordinances, chapter 15. Laws of 1883, chapter 94. Public Statutes, page 170.) Telephone at house and office.

Inspectors of Oil.

Joseph B. Baril	. . . . .	99 Bridge street
John Cayzer	. . . . .	383 Granite street

(Public Statutes, chapter 126, sections 25-34. City Ordinances, chapter 25.)
Paid by fees, $\frac{1}{4}$ of 1 per cent per gallon.

Moderators.

Elected biennially. (General Laws, chapter 31, sections 3, 9; chapter 36, section 9; chapter 44, section 7. City Ordinances, page 18. See Public Statutes relating to towns and cities.).

Ward 1. Abial W. Eastman, 24 Amoskeag Corporation, Stark Street.

Ward 2. William M. Butterfield, 142 Sagamore street.

Ward 3. Charles L. Harmon, 312 Pearl street.

Ward 4. George H. Warren, 461 Hanover street.

Ward 5. Emmett Duffie, 207 Central street.

Ward 6. Herbert S. Clough, 45 Middle street.

Ward 7. Frank A. Dockham, 18 Pleasant street.

Ward 8. Charles G. Ranno, 63 Parker street, West Manchester.

Ward 9. John T. Hanigan, 159 Cartier street.

Ward Clerks.

Elected biennially. (General Laws, chapter 44, sections 10, 12. City Ordinances, page 18. Public Statutes relating to towns and cities.)

Ward 1. Frank X. Foster, 1382 Elm street.

Ward 2. Wilson F. Higgins, 573 Pine street.

Ward 3. Frank O. Moulton, 211 Bridge street.

Ward 4. George H. Phinney, 133 Hanover street.

Ward 5. John A. Whalen.

Ward 6. Harry I. Dodge, Goffe's Falls.

Ward 7. Charles E. Bartlett, 68 West Merrimack street.

Ward 8. Maurice S. Lamprey, Rockland avenue.

Ward 9. Jean B. B. Beliveau, 5 Monmouth street.

Selectmen.

Elected biennially. (General Laws, chapter 1, section 27; chapter 12, section 6; chapter 40, sections 2, 3; chapter 109, section 27; chapter 213, section 1. City Ordinances, page 18. Public Statutes relating to towns and cities.)

WARD 1.

John H. Wales, Jr., 19 Machine Shop block, Water street.
Henry S. Perry, 24 Stark Corporation, Mechanic street.
Theophile G. Biron, 29 Arkwright street.

WARD 2.

Daniel G. Andrews, 777 Union street.
Jesse B. Nourse, 868 Union street.
Nathaniel Doane, Jr., 103 Brook street.

WARD 3.

John Cronin, 284 Bridge street.
Samuel C. Kennard, 609 Beech street.
John A. Sargent, 69 Wilson road.

WARD 4.

Charles H. Uhlig, 94 Laurel street.
Frank E. Farrell, 550 Lincoln street.
Charles F. Nallgey, 234 Manchester street.

WARD 5.

Arthur Allen, 74 Auburn street.
Charles J. Woods, 217 Central street.
Jeremiah Teehan, 224 Lake avenue.

WARD 6.

John N. Auger, Nutt road near Pine street.
Edward P. Cogswell, 409 Cedar street.
Harrison P. Heselton, 261 Laurel street.

WARD 7.

Hanson R. Armstrong, 58 Amoskeag Corporation, West Merrimack street.

Robert Leggett, 50 Amoskeag Corporation, Canal street.

Robert Morrow, 66 Amoskeag Corporation, West Merrimack street.

WARD 8.

George B. Barnes, 170 Walker street.

Auguste Filion, 72 Second street.

Benjamin J. Mack, 145 Boynton street.

WARD 9.

Gideon Belisle, 335 Dubuque street.

Oswald Paris, Amory, corner Morgan street.

Martin J. Rafferty, 450 Beauport street.

VALEDICTORY ADDRESSES.

VALEDICTORY ADDRESSES.

MAYOR KNOWLTON'S ADDRESS.

Gentlemen of the City Councils :

Having been named for a high position within the gift of the national government, it becomes my duty at this hour to take leave from you who have been my companions in a long and arduous labor. I will say as one other has said before me, that "the one who is bidden away from such a fellowship of dutiful toil goes forth companionless, and whether the days darken around him or brighten, and whether the first or last 'well done' is sounding in his ears from those whom, with his uttermost strength, he has labored to serve, he goes forth companionless, among new men, strange faces, other minds."

Whatever fortune betides me in the years to come, I shall never permit myself to forget your fidelity in our joint and common toil for the public weal, and shall ever hold in high regard my association with you in municipal government.

The fourth year of my administration is now well advanced, and I feel that I shall be pardoned if I at this time briefly touch upon some of the most important events and accomplishments which have taken place during my term as mayor. If my memory serves me correctly, there are eight members here in convention who have been continually associated with me since I began my connection with the city government four years ago, viz.: Aldermen Worthen, Maxwell, Reed, Cronin, Barry, and Wolff, and Councilmen Dunlap and Snow. The first-named has served continuously in the board of mayor and aldermen, Councilmen Dunlap and Snow continuously in the more popular branch of the

city government, and Aldermen Cronin, Reed, Barry, Maxwell, and Wolff served first in the council and won their promotion to the upper branch. But whether members of the past or the present city government, I desire at this time to bear pleasing testimony to the order, business methods, and close attention which have characterized all of our deliberations, and to publicly acknowledge the never-failing courtesy, kindness, and hearty support which have ever been accorded me by both past and present associates.

The duties of mayor are oftentimes peculiarly perplexing and annoying, and in such measure as his co-laborers in the city government sympathize and share with him the burdens of municipal management is he enabled to serve the people.

Ours has been an active and progressive administration, and the years of 1891, 1892, and 1893, stand as the high water mark in the progress and prosperous development of our queenly city. Numerous changes have taken place during the years of our stewardship. We have seen the streets, sewers, and parks placed in the hands of a competent board of commissioners elected by the city councils; and the police department has been made permanent, and its government lodged under the control of three commissioners appointed by the governor and council. Land has been purchased for the enlargement of the central police station, and to provide facilities for the introduction of the police signal system. The city has also had a serviceable and well-equipped ambulance constructed and placed in commission, which has already demonstrated its usefulness.

FINANCIAL.

Manchester's valuation has increased from \$24,207,740 in 1890 to \$27,439,742 in 1893, and the work of the assessors, to be made public this month, will show a still further gratifying increase in valuation, and a reduction in the tax rate.

Financially the city was never stronger than today. We have refunded \$100,000 of water bonds at 4 per cent, which were bearing 6 per cent interest, liquidated \$70,000 of city bonds of

the war period, have the money on hand to wipe out \$50,000 more of these bonds which fall due July 1, 1894; also the money on hand to cancel the \$25,000 loan which becomes due in December, and which was made to carry on city work late in the fall of 1893, in order to give employment to the many worthy laboring people who were then out of work. We have, furthermore, a balance of \$25,000 to assist in liquidating \$100,000 of bonded indebtedness, which falls due July 1, 1895. The money for these purposes was obtained at the low rate of $2\frac{1}{2}$ per cent, and by making the bank negotiating the loan the depository of the city's money.

We have issued \$100,000 of permanent improvement bonds bearing interest at 4 per cent, and \$200,000 of water bonds, \$100,000 of which bear interest at $4\frac{1}{2}$ per cent, and the remaining \$100,000 are a 5 per cent issue; but in assuming this indebtedness we have provided a way for its payment by annually setting aside a sum of money as a sinking fund, which sum will, at the maturity of the bonds, be sufficient to cancel them.

Never was the splendid credit of our city shown to better advantage than during the severe financial panic in the summer of 1893. In the midst of those days and weeks of financial fear, when other municipalities were stopping work because of their inability to procure the money necessary to meet the pay-roll of their laborers, our city not only made a satisfactory loan of \$100,000, but floated two sets of bonds of \$100,000 each.

SCHOOLS.

This is a department to which we can invite public attention with feelings of genuine satisfaction and pride. New school-houses have been erected at Hallsville and on Pearl street; the latter school building is being duplicated in McGregorville; two large wings have been added to the Webster-street schoolhouse, one wing to the Training school, and another to the Goffe's Falls school building, and the preliminary steps are under way for another large schoolhouse in the southeastern section of the city. Without reference to the latter, building accommodations have

been provided for more than 1,000 pupils in the public schools, a record so luminous with good as to call forth many commendatory congratulations.

WATER-WORKS.

This magnificent plant, owned by the city, has been made intrinsically more valuable by the introduction of the high pressure service, which not only re-inforces the older system but carries our unrivaled water supply to heights of land which formerly could not be reached. The new service, with all of its beneficent advantages, will be in operation within a few months.

During my term as mayor, twenty-two miles of iron water pipe have been laid, five miles of cement water pipe replaced by iron, and today we have fifty-five miles of iron pipe in service and nineteen miles of cement pipe. There has been an increase of 760 meters, 790 fixed rate additions, and 107 fire hydrants. Water rates to consumers have been reduced and yet the annual income from the works exceeds \$100,000 per annum. The commissioners are making progress towards securing the ownership of all the land along the shores of Lake Massabesic.

STREET AND SEWER DEPARTMENT.

There have been laid out $26\frac{1}{4}$ miles of new streets, macadamizing to the extent of 2 miles has been put in, an area of $9\frac{1}{2}$ miles of streets has received a topdressing of stone, $27\frac{1}{2}$ miles of streets have been graveled, and 39 miles of highways have been turnpiked. In concreting, 44,301 yards have been laid in street crossings, sidewalks, and roadways, 14,798 feet of new edge stone set, 3,367 feet of edge stone reset, 16,650 square yards of cobble gutter paving laid, and 20,476 feet of paving relaid. Grading for concrete to the extent of 43,955 feet has been put in, 7,256 feet of cobble edging set, more than $9\frac{1}{2}$ miles of new sewers built, 558 Y's for house connections put in, 266 cesspools built, and 200 cesspools repaired. Elm street at Ray brook has been widened and its appearance thereby greatly improved. Chestnut street, from a point north of the government building

to Amherst street, has also been broadened and the improvement is a most noticeable one. Large stone culverts have been put in on Maple, Lincoln, Walnut, Wilson, and Sagamore streets.

ELECTRIC LIGHTING.

One of the most important and satisfactory measures in the interest of the city which it has been our privilege to consummate was the abrogation of the contract between the municipality and the Manchester Electric Light Company, under which the streets were lighted from dark to daylight, and the making of a new one, which, on the basis of the number of lights in use during the last six months, makes an annual saving to the city of \$7,282. By the new contract the cost of each light was reduced \$22. Nor was this all. In the contract was inserted a clause which read as follows: "If there is during the term of this contract any radical change in the manner of generating electricity, whereby the cost of producing the current is materially lessened, then an adequate reduction in the price of the electric lighting service shall be made."

With an annual saving to the city of more than \$7,000, and the interests of the municipality protected for the future by the terms of the contract, the members of the city government can point to their action on this matter with pride and congratulation, assured that the verdict of the taxpayers is overwhelmingly in accord with them.

FIRE DEPARTMENT.

This branch of the municipal service will compare favorably with any city of equal size in the country, and is justly the pride of our citizens. It contains a membership of 145 experienced fire fighters. Its facilities have been increased by the addition of the Walter M. Fulton engine house and its equipment, the first-class steam fire engine N. S. Bean, an aerial truck of a high grade of manufacture, one new hose wagon, 8,000 feet of the best knit jacket hose, one new exercise wagon, and the con-

tract has been awarded for the building of two others, and four three-horse hitches have been substituted for double ones. An important change for the good of the department was the divorcement of fire teams from subserviency to the street department, so that the fire department is now in readiness at the first note of an alarm to put forth its utmost strength for the suppression of a fire. The most apparent need of the department is in the line of ladder service, it being almost a necessity for additional men to be permanently attached to both of the hook-and-ladder trucks.

A new hosehouse is being built in South Manchester, which, when equipped, will afford the protection needed in the southern section of the city.

BRIDGES.

Among the permanent improvements which we have accomplished none are superior to the bridge constructed over the Piscataquog river in two spans at Second street last year. It cost \$49,057.37, and in beauty, substantiality, and skill in construction it is without a rival in the state. It affords the only avenue of reaching the south bank of the river without crossing a railroad track at grade, and will stand for scores of years as a testimonial to the business ability, wisdom, and foresight of the present city government.

Arrangements have already been perfected for the construction of a handsome, double-arch stone bridge at South Main street, which will cost \$28,000. Both the Second street and South Main street bridges are of a most durable and permanent character, and if properly cared for should be serviceable and in every way sufficient to meet the wants of the city a century hence. We can safely trust the verdict of the future in these enterprises.

PARKS, COMMONS, AND CEMETERIES.

A systematic effort has been inaugurated for the development of both Stark and Derryfield parks in accordance with plans

which have met with the approval of the city councils, and by means of the appropriations that are annually made these parks will soon be fashioned into resorts of great attractiveness and beauty. Stark park was dedicated on the 17th of June, 1893, and the time is believed to be not far distant when an equestrian statue will be erected thereon to the memory of him who is Manchester's most illustrious hero.

The commons have been well cared for and have afforded an attractive resting place to thousands of weary toilers throughout the summer evenings. In winter they have been converted into skating places for the use of the youth of the city, thereby affording recreation and enjoyment without the risk incident to river and lake.

Both the Valley and Pine Grove cemeteries have been greatly beautified and improved, and the territory of the latter largely increased by the purchase of adjoining land.

MISCELLANEOUS.

The city almshouse and house of correction buildings have been enlarged and greatly improved, thereby providing better facilities and many additional conveniences, which were sorely needed for the care of the inmates. The Elliot and Sacred Heart hospitals have been opened, and the Women's Aid Hospital has taken a more commodious home. In all of these institutions the city has an interest and it is an annual contributor to their maintenance. The poor have been well cared for by the interested and capable board of overseers of the poor.

The health of the city has been excellent. The Manchester board of health has been unwearied in its efforts to this end, and the cleanliness of the city last season was a source of favorable comment. Through the efforts of the health board the shores of Lake Massabesic were faithfully patrolled last summer as a precautionary measure, and this patrol should be continued whenever there are any number of people gathered about the lake.

The foundation has been put in for a brick ward room building on Lake avenue for the accommodation of the voters of ward

five, and there is an unexpended balance of \$4,000 towards the completion of the structure.

The city library building has undergone extensive improvements, and the number of books upon the shelves has been largely increased.

The doing away with discount on taxes has resulted in an annual saving to the city of from \$5,000 to \$6,000.

The capacity of the city stable building has been increased, and the street department has created a repair shop which makes a substantial saving in expense.

CONCLUSION.

Surrounded by desirable physical advantages, possessing excellent sanitary conditions, an unsurpassed supply of pure drinking water, and many other blessings, together with both the opportunity and tendency to grow, the future of our city is radiant with promise. The ownership of homes, an unfailing criterion of individual prosperity, is as well established as in any other city of equal population in New England, and there is nothing, I earnestly believe, better calculated to insure good government, aside from public educational advantages, than the encouragement of home building on the part of the people. Our city is strong mentally and morally, and holds out equal advantages to rich and poor alike. I believe that it is right and proper that we should enthuse over the blessings which we are privileged to enjoy, and I think it our duty to magnify and emphasize the fair name and fame of our city, and as loyal citizens ever consider her interests as first, and give to the claims of corporate interests and individuals a secondary place. You, fellow associates in the city government, can do no more than to continue in your steadfast fidelity to the trust which has been confided to your keeping, and in the performance of this duty I now bid you God-speed and farewell.

Gentlemen, I, at this time, tender you my resignation as mayor.

Respectfully,

E. J. KNOWLTON,

Mayor.

MAYOR WORTHEN'S ADDRESS.

Gentlemen of the Board of Aldermen :

In closing my official duties it seems proper to make a brief statement concerning the business which has been transacted during the short time I have been mayor, and give the public a summary of receipts and expenditures, so far as is practicable, during the year 1894.

I assumed the duties of this office July 10, 1894; but very little business having been transacted in the ten days previous, my administration practically covers the last half of the year.

The following statement shows substantially the condition of affairs July 1, 1894 :

The reserve fund appropriation made January 1, 1894, was \$20,000; the balance unexpended July 1, was \$3,780. The appropriation for incidental expenses was \$12,000; there had been transferred May 18, from the reserved fund appropriation to the incidental expense fund, \$10,000, making a total of \$22,000; the balance unexpended July 1 was \$2,022.63. The appropriation for printing and stationery was \$2,000, the amount left unexpended July 1 was \$16.13. The appropriation for city hall expenses was \$2,700; the amount unexpended July 1 was \$1,244.78. The appropriation for repairs of buildings was \$4,000; this sum had all been expended, and there was an overdraft on that account of \$65.58. Contracts had been made relating to the Pearl-street schoolhouse which gave an overdraft of \$2,835.25; similar contracts relating to the Webster-street schoolhouse, which gave an overdraft of \$845.13, and relating to the Rimmon schoolhouse which gave an overdraft of \$88.24. No provision had been made for furnishing the rooms, or grading and fencing the last-named school building lot. There was also an overdraft of about \$200 in the South Manchester hosehouse; contract for this had been made before July 1.

A temporary loan of \$25,000 was made, date 1893, in anticipation of the taxes of 1894, which fell due and was paid December 1, 1894. No appropriation, however, was made from the

ordinary receipts for the payment of this loan; but it was, in fact, extended by another loan in the following manner:

In January, 1894, a vote was passed providing for a loan of \$100,000 to be applied: \$50,000 to pay so much of the funded debt falling due July 1, 1894; \$25,000 to pay the temporary loan of 1893, December 1; and \$25,000 to pay so much of the funded debt which falls due July 1, 1895.

One of the provisions of the vote referred to was that the bank which took this loan should have the deposits of the moneys collected by the treasurer and collector, and it was to be taken by the lowest bidder. The rate, as I am informed, was two and one half per cent. This loan began to draw interest March 1, 1894, but the city received its first instalment of \$50,000 July 1, its second of \$25,000 December 1, and will receive its last of \$25,000 next July. It will thus be seen that the indebtedness of the city is not lessened, but only extended by changing its form, and that the bank making this loan really receives a greater rate of interest than the contract specifies, besides having the benefit of all the deposits carried by the city.

If the temporary loan of \$25,000 had not been effected, a deficit would have come over from 1893, as will be seen by the following statement which I have received from the auditor:

Net cash in hands of treasurer January 1, 1893	\$96,477.18
Total ordinary receipts during the year 1893	516,370.09
Received from the state	120,228.74
	<hr/>
	\$733,076.01
Improvement bonds sold	\$100,000.00
Temporary loan in anticipation of tax of 1894	25,000.00
Premium on bonds	6,090.00
Cemetery bonds sold	6,000.00
	<hr/>
	\$870,166.01
The annual appropriation for 1893 was	\$733,901.55
Total expenditure	848,432.76
Cash December 31, 1893	21,733.25

This statement of the receipts and expenditures is independent of the water-works account, which is kept separate and under the control of the board of water commissioners. Besides this the auditor informs me that bills amounting to several thousand dollars were kept back and brought into this year's accounts.

Cash on hand January 1, 1894	\$21,733.25
Total ordinary receipts during year	556,101.75
Improvement bonds sold	100,000.00
Cemetery bonds sold	5,000.00
Premium on bonds sold	7,576.00
Received from the state	110,532.59
Security note or bond	100,000.00
	<hr/>
	\$900,943.59
Annual appropriations for 1894	\$735,935.37
Total expenditures for year	843,221.90
Cash, December 31, 1894	57,721.69

This statement is also independent of the water-works account. There was no appropriation for election expenses.

The Howlett place has been bought for the Pine Grove cemetery, price, \$4,400; \$1,000 to be paid down and the rest in April, 1895, but as a matter of fact all bills that were due have been paid, and this has been done without making any loan.

The following is a statement of the city debt :

Water bonds	\$850,000.00
City bonds	415,000.00
Cemetery bonds	32,000.00
Security loan	100,000.00
	<hr/>
	\$1,397,000.00
State receipts, 1893	\$120,228.74
State receipts, 1894	110,532.59
	<hr/>
Deficit	\$9,696.15

The high pressure water supply which was projected in 1890 has been completed and is now in full operation. The work was delayed by lack of authority on the part of the city. The legislature of 1892 passed the necessary act and since then the undertaking has been carried forward as rapidly as was judicious. It makes our water supply one of the best in the country.

There is always opportunity for improvement in the means of prosperity in any town or city, and of course there are many things to be done in Manchester for the public benefit. I will only mention such as seem particularly important.

It is apparent that a new high school building should be provided at an early day. Just what is the best plan in this respect I am not prepared to say, but the subject should receive the careful and earnest consideration of the city government. The health and comfort, as well as reasonable facilities for school purposes, of pupils of the High school demand attention to the matter. Its importance can hardly be appreciated, and I commend it to the government and the people of the city.

The subject of the city hall has received some attention and various suggestions have been made. It is evident that some repairs and alterations in the present building should be made. The roof is in bad condition, but a new one of a different character can take its place and the interior be remodeled for a comparatively small sum. Those portions now occupied by tenants should be appropriated to public use, and thus the building serve every needed purpose for many years. The city would in that way save expending a very large sum and would for the present, at least, avoid the schemes and jobs of speculators which, according to experience of most places similarly situated, are pretty sure to fasten themselves upon important public undertakings.

In closing this review of the city's fiscal year, I tender to each and every one my sincere thanks for their uniform courtesy and cordial support.

Very respectfully,
BYRON WORTHEN,

Mayor.

REPORT
OF THE
BOARD OF WATER COMMISSIONERS.

BOARD OF WATER COMMISSIONERS. 1894.

BYRON WORTHEN,* MAYOR, *ex officio*.

ALPHEUS GAY, term expires January, 1899.

ANDREW C. WALLACE, term expires January, 1900.

JAMES A. WESTON, term expires January, 1897.

HENRY CHANDLER, term expires January, 1898.

CHARLES H. MANNING, term expires January, 1901.

CHARLES T. MEANS, term expires January, 1896.

Officers.

ALPHEUS GAY, *President*.

JAMES A. WESTON, *Clerk*.

CHARLES K. WALKER, *Superintendent*.

ARTHUR E. STEARNS, *Registrar*.

JOSIAH LASELLE, *Engineer at Low Service Pumping Station*.

H. A. DONAWAY, *Engineer at High Service Pumping Station*.

* Hon. Edgar J. Knowlton and Hon. David B. Varney each served a portion of the year.

REPORT

OF THE

BOARD OF WATER COMMISSIONERS.

To the City Councils of the City of Manchester :

GENTLEMEN,—The Board of Water Commissioners have the honor to submit herewith their twenty-third annual report for the year ending December 31, 1894, together with the report of the superintendent covering the same period of time, to which reference is made for the details of the service connected with this department. The final report of the engineers of the high service system, and also their report and estimates for laying pipes in the thickly settled portions of the city, to be connected with the high service reservoir, for fire protection, are appended hereto, to which attention is directed for the details relating to those subjects.

The receipts and expenditures for the year have been as follows :

Balance unexpended December 31, 1893	.	.	\$95,144.16
Receipts from water rentals and miscellaneous	.	.	110,210.29
Received for bonds sold	.	.	50,000.00
Received for premium on same	.	.	
Total receipts	.	.	<hr/> \$255,354.45

Paid interest on water bonds	\$38,399.00
current expenses and repairs	24,909.86
construction	159,289.07
hydrant rentals set aside for sinking fund	13,925.00
	<hr/>
Total expenditures	\$236,522.93
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Balance unexpended	\$18,831.52

Early in the year 1891 the city councils passed an ordinance by the terms of which all moneys received by the water department, together with the balance then on hand, were turned into the city treasury for general city purposes, and the funds necessary for the maintenance of the water-works were appropriated by the city councils. This law was in force for two years, when the original plan of keeping the earnings, expenses, and funds of this department separate and distinct from the other departments of the city was returned to by an act of the legislature. During these two years, the sum of \$57,920.91 was taken from the net earnings of the water-works and applied to the general purposes of the city. In adjusting this matter so as to make the accounts of the commissioners agree with the statements made by the city auditor, the amount claimed as standing to the credit of the water-works has been reduced the above amount. The balance unexpended one year ago was given as \$153,065.07. The balance brought forward to the account of 1894 is stated to be \$95,144.16, showing a loss to the water-works account of \$57,920.91, as above stated.

By an oversight, or some unexplained cause, the premium received by the city on the \$250,000 water bonds sold the past two years, amounting to \$8,845, has not been credited to the water-works account. When this is done, the balance unexpended December 31, 1894, will be \$27,316.52 instead of \$18,831.52, as shown in the above statement.

The high service system of water-works, commenced in 1893,

is now practically completed, a few minor matters of inconsiderable amount only remaining for attention the coming year. The cost of this important undertaking has not exceeded the expectations of the commissioners as foreshadowed in former reports, while the value to the city in having virtually a double system, one operated by water power and the other by steam power, is beyond any possible comparison that can be made, based on the money required to acquire it. It is doubtful if any city in the country has a more complete system of water-works, when the elementary advantages and the possibilities of further improvements are considered.

The elevated lands of the eastern section of the city, so long deprived of the advantages of water-works, are now well supplied and a petition is now before the board asking for an extension of the high service pipes to the high lands in the northern portion of the city. It is a part of the plan to furnish water to the inhabitants living on the territory last named, and it will be carried out as rapidly as circumstances shall reasonably demand. The cost of the high service system, to the present time, is \$195,110.39, the details of which will be found in the accompanying report of the superintendent.

In addition to the final report of the engineers on the high service water-works, appended hereto, will be found a supplementary report of a plan and probable cost of an independent system of water pipes, designed especially for fire protection, which it is proposed to connect with the high service reservoir. The territory embraced in the report is bounded on the west by Elm street, on the east by Union street, on the north by Orange street, and on the south by Auburn street ; the pipe in Elm street extending as far north as Brook street. The engineer proposes to set four way-post hydrants every 300 feet on Elm street, and every 400 feet on the other streets, and estimates a pressure ranging from 110 to 130 pounds per square inch.

The system outlined could be put in in sections and increased at pleasure, as might be deemed advisable or desirable. To carry out the plan suggested would require an outlay of about

\$100,000. This subject is introduced at this time to show the feasibility of the project and the approximate cost. Whether the advantages that would be derived are such as would warrant the expenditure of so large a sum of money is a question that has not been considered by the board sufficiently to enable it to make an intelligent recommendation on the subject.

Your commissioners have been purchasing land bordering on Massabesic lake, from time to time, until the city now owns nearly one half the shore line, which has been paid for out of the net earnings of the water-works. In this matter the commissioners have long been of the opinion that it was only a question of time when it would be necessary to acquire the entire lake front in order to enable the city to exercise such reasonable control over the waters of the lake as a due regard for the lives, health, and comfort of the citizens demanded. With this object in view they have proceeded as fast as a proper regard to economy and the public sentiment on the subject would warrant.

Recently, however, a feeling has developed in the public mind that the welfare of the people demanded more active measures to bring about this result. This feeling being in accord with the views of the commissioners, proceedings have been commenced to take the remaining land in Hillsborough county by condemnation under the authority conferred by the legislature. It is expected that the proceedings will be concluded and the matter adjusted during the coming year.

About a year ago the Devonshire Mills, located at Goffe's Falls, brought a suit in the United States court against the city, alleging damages by reason of diverting the water from Cohas brook, the outlet of Massabesic lake, on which their mills are situated. As the termination of this suit would only settle past claims, leaving the future open to further litigation, it was deemed desirable by both parties in interest to have a final adjustment of all questions that might arise, at the present time. Arrangements have accordingly been made to submit the matter to impartial referees, who are to fix the sum to be paid by the city for all past, present, and future damages, which sum the city is to

pay upon receiving a deed from the Mills relinquishing all its claims against the city. It is expected that a settlement can be effected early the coming summer.

Respectfully submitted.

ALPHEUS GAY,
ANDREW C. WALLACE,
JAMES A. WESTON,
HENRY CHANDLER,
CHARLES T. MEANS,
CHARLES H. MANNING,
BYRON WORTHEN,

Water Commissioners.

SUPERINTENDENT'S REPORT.

To the Honorable Board of Water Commissioners of the City of Manchester :

The following is the report of the superintendent for the year 1894, which is respectfully submitted :

MASSABESIC LAKE.

Very low water will describe the condition of Lake Massabesic the past season. The lake froze over lower than last year, and if the channel had not been lowered we should have been without water power at the old pumping station a portion of the time last year and this. The water stands today thirty inches below the dam, one inch lower than the year 1880, when the channel was lowered. No repairs of any account were made from the lake to the city of anything connected with the pumps, pipe line, or reservoir. Repairs were made on the outside and inside of the pumping station to the amount of about \$450. The following is the amount pumped :

AMOUNT PUMPED INTO THE LOW SERVICE RESERVOIR.

MONTHS.	Kind of pump.	No. hours' work.	Average strokes per minute.	Total number of strokes pumped.	No. gallons each pump.	Total number each month.	Daily average.
January	Davidson.....	451 h. 00 m.	19.22	520,244	79,076,632	79,076,632	2,550,800
February	Davidson.....	415 " 00 "	19.55	487,349	74,077,048	74,077,048	2,645,608
March	Davidson.....	386 " 10 "	20.70	479,597	72,898,744	72,898,744	2,351,572
April	Wood	371 " 50 "	22.32	497,689	65,694,948	65,694,948	2,187,475
May	Davidson.....	411 " 45 "	22.28	552,647	72,949,404	72,949,404	2,352,207
June	Wood	394 " 15 "	22.21	527,342	69,609,144	69,609,144	2,320,305
July	Davidson.....	435 " 00 "	20.54	538,191	81,805,032	81,805,032	2,638,872
August	Davidson.....	449 " 45 "	21.23	554,421	84,271,992	84,271,992	2,718,451
September	Davidson.....	403 " 15 "	19.98	485,576	73,807,552	73,807,552	2,460,252
October	Davidson.....	332 " 00 "	19.24	382,756	58,179,216	58,179,216	1,876,749
November	Davidson.....	437 " 00 "	18.91	484,396	73,624,088	73,624,088	2,454,136
December	Davidson.....	471 " 00 "	18.23	515,252	78,318,304	78,318,304	2,526,074
Totals and averages .....	.....	4,958 h. 00 m.	20.37	6,025,457	884,312,104	884,312,104	2,423,430

STATEMENT OF WORK DONE BY WORTHINGTON PUMPS, HIGH SERVICE, TO DECEMBER 31, 1894.

MONTHS.	TIME.		No. of strokes.	Gallons pumped.	Pounds of coal used in pumping.	Banking and heating.	Head.
	Hrs.	Min.					
June .....	.....	.....	.....	10,000,000	35,000	.....	264 ft.
July							
Sept. 19 to Oct. 11	153	30	345,288	18,645,552	61,792	.....	264 "
Oct. 11 to 31	93	25	219,966	11,878,164	40,998	.....	264 "
November	68	30	160,546	8,669,484	28,612	4,382	269 "
December	43	35	99,679	5,482,666	17,285	9,303	273 "
Total .....	.....	.. ..	825,479	44,675,866	183,687	13,685	.....

Work was commenced in the month of April to lay the pipe for distributing the water over Wilson Hill from the high service reservoir. A twelve-inch pipe was laid from the Mammoth road to Ashland street, and the old cement pipe was taken out from Lowell street south on Ashland and Wilson streets to Lake avenue, and the low and high service separated on these two streets.

The people take water at the present time off the high service system from Spruce street to Pearl, east of Wilson street, excepting Lake avenue, which has high service from Hall street east to Canton street. Water was let into the high service system September 21, and the water takers who live east of Wilson and Ashland streets have been supplied from the new reservoir most of the time since.

The contractors who laid the pipe and built the new reservoir have done their work in a good, substantial manner. The chief engineer and his assistant, Carleton E. Davis, have looked carefully after the work, and the result is we have one of the best high-service systems in the country. It is connected with the low service, and so constructed that the water can be pumped into the old reservoir direct, or the city can be supplied from the reservoir by opening the twenty-inch gate at Hallsville fourteen

to eighteen turns, the old one acting as a relief valve. Cost of high service to date, \$195,110.39.

The high service will eventually run down Bridge street to Maple street, up Maple street to Brook street, down Brook street to Elm street, and north from Brook street up onto the hill. That will put all north of Bridge and east of Maple to Brook, also north of Brook street on the east side of Elm street, onto the high service, and on the west side from Clark street north. This will require a new line of pipe on Maple street, but for the present the pipe could be connected on Belmont street from Pearl to Prospect streets, and should be at any rate to make circulation; and then the water from the high service could run down Myrtle and Prospect streets to Beech street, up Beech street to Brook street, and up onto the hill.

The report of Dean & Main, mechanical engineers, of Boston, who tested the pumping machinery and boilers, will be annexed to this report.

The new pumping station having been built in the woods, it required a great deal of work to clear up the land and do the little grading done about the pump house and the other buildings. This work will be continued next year, as there is quite an amount to be done to get the grounds in proper shape.

A road has been built from old Bridge street up the hill as far as the new reservoir. Two thirds of the way it has been graveled and finished, making a good roadbed. It was culculated to build the road up to the summit north of the reservoir, but the ground being frozen it was thought best to stop work till next spring.

We have laid about seven miles of distribution pipe the past year, and the largest portion has been in hard digging. Ledge has been encountered in Lowell and Hanover streets, and Candia road at Youngsville. Ten men have worked at blasting every day since the first of April. Good digging for laying new pipe has gone by in Manchester, and as the city spreads out we find more rocks and ledge cutting, and a harder soil to lay pipe in.

Pipes have been extended in Ash, Amory, Byron, Belmont, Bridge, Bismarck, Boynton, Concord, Charleston, Conant, Cass,

Dearborn, Elm, East High, Frederick streets, Glenwood avenue, Green, Hayward, Hanover, Hall streets, Highland avenue, Hevey, Jewett, Joliette, Kelley, Kearsarge, Lowell, Laval, Laurel, Mead streets, Mast road, Mammoth road, Merrimack, Marion, McGregor, Main, Orange, Page, Pearl streets, Rockland avenue, Sullivan street, Shirley Hill road, Somerville, Second, Taylor, Walnut streets, Wilson road, Woodland avenue, Union street, Candia road, and Young street, making fifty-two streets, at an expense of about \$33,200. We have now eighty miles of distribution pipe; about seventeen and three fourths is cement lined.

During the past year pipe was relaid in Amherst, Ashland, Hanover, Central, Laurel, Mechanic, Milford, Merrimack, Manchester, Main streets, Mast road, Market, Walnut, Washington, Water streets, and Wilson road,—7,664 $\frac{3}{4}$ feet, at an expense of \$8,000. The contract price for pipe delivered in May and June about was \$23 per ton; 2,240 pounds furnished by McNiel Pipe Co.

There have been about the same number of leaks as usual. The ground did not freeze very deep last winter and the hydrants did not trouble us much. Service pipes did not have to be thawed out, but some had to be dug up on account of eels getting in and stopping the water. This is something new. We have never been troubled with eels in service pipes before, but have had some trouble with small fish. For these things there is no remedy for they grow in the pipes and, as a rule, we have to dig down to the main, whether there is four feet of frost or not any, in order to get them out.

There have been about 291 new services put in this year, and 65 new hydrants set, making 632 public hydrants in the city. It is the unanimous opinion of the New England Water-Works Association that hydrants should not be opened in cold weather unless for fire purposes. Now it seems to the superintendent if we are going to continue to pump water for skating on the commons that they should be piped and not use the hydrants for flooding the grounds to make ice.

The following table shows the rainfall at high service pumping station to December 31, 1894.

DAY.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1.....												
2.....							.61	.80				
3.....						.26					.83	*.52
4.....							.05	.10		.71		
5.....										.18		
6.....						.05						
7.....												
8.....									.39			
9.....							.13			.05	*.23	*.16
10.....									1.63		*.34	
11.....								.15		.86		
12.....							.04					.81
13.....											*.12	
14.....							.04			.21		
15.....							.01	.11	.10			
16.....							.21					
17.....									.38			
18.....												
19.....											*.09	
20.....						.10			.95			
21.....								.12	.06		.42	
22.....						.11	.33					
23.....												
24.....							.55					
25.....						.03				.06	.11	*.02
26.....							.04			.28		
27.....												*.93
28.....							1.20					
29.....					1.18			.07				
30.....					.01	.03					*.06	
31.....					.39					.51		
.....					1.58	.58	3.11	1.35	3.51	2.86	2.20	2.44

*Snow melted.

Commenced to keep the rainfall May 29, 1894.

The following streets are where cement-lined pipe was taken up and cast iron laid.

STREETS.	LENGTH IN FEET.				LOCATION.
	10 in.	8 in.	6 in.	4 in.	
Amherst.....			50		Ashland.
Amherst.....			896		Pine to Beech.
Ashland.....	334½				Hanover to Amherst.
Central.....			953		Elm to Pine.
Central.....			506		Pine to Union.
Central.....			38		Wilson.
Chestnut.....			257		Brook to Blodget.
Hanover.....	102½		24		Wilson to Ashland.
Hanover.....			450		Pine to Union.
Lanrel.....			39		Wilson.
Main, South.....	246				Winter to south of Log.
Manchester.....			42		Wilson.
Market.....			172		West of Elm.
Mast road.....			407		West of Main.
Mechanic.....			740		Canal to Elm.
Merrimack.....			40		Wilson.
Milford.....			509		East of Tilton.
Walnut.....				48	North of Amherst.
Washington.....				57	On Elm.
Water.....			570		Canal to Kennard block.
Wilson.....	1284				Hanover to Lake avenue.
Size of pipe changed on Central street, 6 to 8 in	1966¾		5693	105	
		953	953		
	1966¾	953	4740	105	

Total feet relaid, 7,764¾.

One 4-inch gate on Washington, corner Elm, was taken out.

PIPES, GATES, AND HYDRANTS LAID IN 1894.

STREETS.	PIPE LAID IN FEET.						GATES SET.						LOCATION.			
	20 in.	14 in.	12 in.	10 in.	8 in.	6 in.	4 in.	20 in.	14 in.	12 in.	10 in.	8 in.		6 in.	4 in.	Hydrant.
Anherst ..													1	...	...	Corner Beech.
Amory ..						9	9							...	1	Opposite No. 21.
" ..							314						1	...	...	Corner Kearsarge.
Ash .....															...	North of Brook.
Ashland ..											1				...	Corner Anherst.
Beaumont ..													1	...	...	Corner Conant.
" ..						721							1	...	...	Bridge to Pearl.
Belmont ..						168								...	1	South of East High.
Bismarek ..						238								...	1	North to Charleston.
Boynton ..					574	8								...	1	To Glenwood.
Bridge ..						396							1	...	1	To Belmont.
" (Old) ..						253							2	...	2	Old Mammoth to new Mammoth
Byron ..					962								1	...	4	Brown avenue to Marshall.
Candia road ..			2,648			53							1	...	1	Fletcher Crossing to Proctor's.
Cass						250							1	...	1	Central to Laurel.
Central ..													1	...	...	Corner Elm.
Charleston ..						360							1	...	...	To Bismarek.
Chestnut ..														...	1	Corner Myrtle.
Cohas avenue ..						15							1	...	1	Opposite Mr. Bird's.
Conant ..						208								...	1	Main to Beaumont.
Concord ..						380							1	...	1	Belmont to Beacon.
Dearborn ..						550							1	...	1	East to Taylor.
East High ..						522							1	...	1	Belmont to Beacon.
Elm	412					23							1	...	1	Clark to Thayer.
Frederick ..						223							1	...	1	East of Second.
Glenwood ..						421							1	...	1	West of Woodland.
Green ..						335								...	...	East of Union.
Hall ..						398							2	...	1	North of Bridge.
Hanover ..						932							1	...	2	Beacon to Highland.
" road ..			2,214			32					1		1	...	2	S. M. Page's to G. S. Smith's.
Hayward ..						460								...	1	Belmont to Taylor.
Hevey ..						338							1	...	1	North of Conant.

PIPES, GATES, AND HYDRANTS LAID IN 1894.—Continued.

STREETS.	PIPE LAID IN FEET.						GATES SET.						Hydrants.	LOCATION.		
	20 in.	14 in.	12 in.	10 in.	8 in.	6 in.	4 in.	20 in.	14 in.	12 in.	10 in.	8 in.			6 in.	4 in.
Highland Park...						1,040							1	1	1	Candia Road to Glenwood
Jewett.....					831	10									1	Young road to Clay.
Joliette.....						884							3		1	Amory.
Kearsarge.....						525							2			North of Amory.
Kelley.....						1,483									2	Hevey to Joliette.
Laurel.....						123										Eastward to Cass.
Laval.....						339							1			North of Amory.
Lowell.....			3,496			40				2			5		5	Ashland to Mammoth road.
Main (North).....						8				1					1	Opposite No. 428.
" (South).....											1				1	South side of stone bridge.
Malvern.....							296									North of Concord.
Mammoth (new).....	102					60									1	North of Old Bridge street.
Marion.....						8							1		1	Connect to Oak Hill reservoir.
Market.....						104							1		1	West to Main.
Mast road.....					1,678	40						1				Corner Elm, opposite church.
McGregor.....						9									3	Westward beyond Shirley Hill rd
Mead.....						362							1		1	Opposite No. 44.
Mechanic.....													1			Hall to Belmont.
Merimack.....						225							1			Corner Elm.
Milford.....													1			East of Beacon.
Orange.....						346										Corner Tilton.
Page.....						1,633							2		1	To Belmont.
Pearl.....						400							1		1	Belmont.
Rockland ave.....						1,405							2		2	To Belmont.
Second.....						1,612							2		1	Northward to Mast.
Shirley Hill road.....						651							1		1	Frederick to Harvel.
Somerville.....			397			10				1					1	Mast to Rockland avenue.
Sullivan.....						63							1		1	Jewett to Cypress.
Taylor.....						54									1	West of Main.
Union.....						945							1		1	South of Dearborn.
Valley.....						15							2		2	Silver to Young.
																Corner Pine and corner Union.

PIPES, GATES, AND HYDRANTS LAID IN 1894.—Continued.

STREETS.	PIPE LAID IN FEET.							GATES SET.							Hydrants.	LOCATION.
	20 in.	14 in.	12 in.	10 in.	8 in.	6 in.	4 in.	20 in.	14 in.	12 in.	10 in.	8 in.	6 in.	4 in.		
Wilson.....															2	Corner Laurel, Lake, Hanover.
Walnut.....						1,575					3		1		2	Sagamore to Webster.
".....						1,212								1	3	Corner Amherst.
Woodland.....						628							1		1	Candia road to Glenwood.
Young.....																Eastward to Jewett.
	102	412	3,893	4,862	4,045	23,134	580	2	1	3	9	6	54	3	64	

Number miles of pipe laid in 1894, 37,028 feet, or 7.013 miles.

Number of gates set in 1894, 78.

Number of hydrants set in 1894, 64.

LOCATION OF HYDRANTS SET, 1894.

Amory, opposite No. 21.
Amory, corner Kearsarge.
Belmont, corner Mead.
Bismarck, corner Charleston.
Boynton, corner Glenwood.
Bridge, corner Belmont.
Byron, opposite Varney's house.
Byron, corner Marshall.
Candia road, opposite Cram's residence.
Candia road, opposite Farmer's residence.
Candia road, opposite Proctor's residence.
Candia Coad, 35 feet east of Clough's.
Central, corner Elm.
Cohas, opposite Mr. Bird's residence.
Conant, corner Hevey.
Concord, corner Beacon.
Dearborn, 150 feet west of Taylor.
Elm, near Thayer.
Frederick, corner Second.
Glenwood, corner Highland.
Hall, corner Mead.
Hanover, corner Hubbard.
Hanover, corner Highland.
Hanover road, opposite S. T. Page's residence.
Hanover road, opposite Mrs. Brown's residence.
Hayward, near No. 746.
High, corner Beacon.
Highland, corner Oakland.
High service reservoir, 100 feet from gate house.
Jewett, corner Clay.
Joliette, corner Amory.
Kelley, corner Joliette.
Kelley, corner Kearsarge.
Lowell, corner Belmont.
Lowell, corner Beacon.

Lowell, corner Hall.
Lowell, corner Highland.
Lowell, corner Weston.
Mammoth road, corner Old Bridge.
Marion, corner North Main.
Mast, Shirley Hill road.
Mast, near Mr. Blackstock's.
Mast, corner Highland.
McGregor, opposite No. 44.
North Main, opposite No. 428.
Orange, corner Belmont.
Page, corner Candia road.
Page, corner Hanover.
Page, opposite shoe shop.
Page, 200 feet south of railroad.
Pearl, corner Belmont.
Rockland avenue, corner Grove.
Rockland avenue, corner Shirley Hill road.
Second, corner Schiller.
Somerville, corner Jewett.
Sullivan, corner North Main.
Valley, corner Pine.
Valley, corner Union.
Walnut, corner North.
Walnut, corner Salmon.
Woodland, corner Candia road.
Woodland, corner Oakland.
Woodland, corner Glenwood.
Young road, corner Cypress.

Belmont.....						4559	.....	.....	.....	5	.....	7
Bell.....						490	.....	.....	.....	1	.....	2
Birch.....		69				432	.....	.....	.....	2	.....	2
Blodget.....		^a 1518				16	.....	.....	.....	1	.....	4
Bridge.....		708	3883			25	1287	.....	.....	3	.....	17
Bridge (old).....							282	.....	.....	2	.....	1
Brook.....			2239				1147	.....	.....	6	.....	8
Brown avenue.....							2832	.....	.....	3	.....	3
Byron.....							962	.....	.....	2	.....	2
Calef road.....							2056	708 1800	.....	1	2	2
Canal.....	154	1890					2730	45	.....	5	.....	2
Candia road.....							2673	146	.....	3	.....	2
Canton.....							771	.....	.....	1	.....	1
Cass.....							495	.....	.....	2	.....	.....
Clark.....							1949	.....	.....	3	.....	4
Cedar.....			668				993	2287	.....	1	6	10
Central.....		72	2514				1002	2746	.....	2	9	15
Chestnut.....			1145	919	115		382	2723 1809	.....	6	9	8
Concord.....				2275			940	2173	.....	1	8	12
Church.....								147	.....	.....	.....	.....
Cypress.....								962	.....	2	.....	2
Dean.....			10					273½	.....	2	.....	2

[illegible]

SCHEDULE OF PIPES AND FIXTURES LAID TO DECEMBER 31, 1894.—Continued.

STREETS.	Length and size of cement-lined pipe laid.						Length and size of cast-iron pipe laid.							Gates set.							Air valves.	Hydrants.		
	Length and size of cement-lined pipe laid.						Length and size of cast-iron pipe laid.							Gates set.										
	20 in.	14 in.	12 in.	10 in.	8 in.	6 in.	4 in.	20in.	14in	12 in.	10in.	8 in.	6 in.	4 in.	20in	14in	12in	10in	8in.	6in.			4in.	
Mammoth rd.,new	60	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
Manchester.....	3380	.....	.....	.....	.....	.....	.....	570	1160	.....	.....	.....	.....	2	7	.....	.....	1	.....
Maple.....	1108½	.....	.....	.....	.....	.....	.....	.....	7½	752	.....	.....	.....	.....	3	1	.....	2	.....
Market.....	726	.....	.....	.....	.....	.....	.....	.....	236	.....	.....	.....	.....	.....	4	.....	.....	3	.....
Massabesic.....
Mead.....
Mechanic.....	36	.....	.....	.....	.....	.....	.....	.....	752	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Merrimack.....	6 2081	.....	.....	.....	.....	.....	.....	.....	1544	2566	.....	.....	.....	.....	.....	.....	.....	.....	.....
Middle.....	768	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Monroe.....	421	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Morrison.....	352	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Myrtle.....	2719	.....	.....	.....	.....	.....	.....	.....	2528	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nashua.....	57	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
North.....
North River road.
Nutt road.....
Orange.....	1784	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

[illegible]

SCHEDULE OF PIPES AND FIXTURES LAID TO DECEMBER 31, 1894. — *Continued.*

STREETS.	Length and size of cement-lined pipe laid.						Length and size of cast-iron pipe laid.						Gates set.						Air valves.	Hydrants.						
	20 in.						14 in.						20 in.								Gates set.					
	14 in.	12 in.	10 in.	8 in.	6 in.	4 in.	20 in	14 in	12 in	10 in.	8 in.	6 in.	4 in.	20 in	14 in	12 in	10 in	8 in.			6 in.	4 in.				
Valley.....							3641	1923	2096			217	...	1	1	2			7		11					
Vine.....												39	340							2	1					
Walnut.....						694	561					2120	861						4	5	5					
Washington																				2						
Water.....						41																				
Webster.....												695							3		2					
Welch avenue.....												3338							5		8					
Wilson												10	292							1						
Willow			50			10				3655							10		1		1					
Woodland avenue.																				2						
Young												1212									3					
WEST SIDE RIVER.												1388							1		2					
A																										
Adams						61													1		3					
Amoskeag road...												410							1		2					
Amory (north) ...									2922	14		10					2	1	1		1					
Amory (south)...												2342	27						2		3					
												2836	47						4		7					

BOARD OF WATER COMMISSIONERS.

67

[illegible]

[illegible]

SCHEDULE OF PIPES AND FIXTURES LAID TO DECEMBER 31, 1894.—Continued.

STREETS.	Length and size of cement-lined pipe laid.						Length and size of cast-iron pipe laid.						Gates set.						Air valves.	Hydrants.			
	Length and size of cement-lined pipe laid.						Length and size of cast-iron pipe laid.						Gates set.										
	20 in.	14 in.	12 in.	10 in.	8 in.	6 in.	4 in.	20 in.	14 in.	12 in.	10 in.	8 in.	6 in.	4 in.	20 in.	14 in.	12 in.	10 in.			8 in.	6 in.	4 in.
Riddle.....	945	.....	.....	.....	.....	.....	.....	1	.....	1
Rimmon.....	1753	.....	.....	.....	.....	.....	.....	3	.....	.....
Rockland.....	2727	.....	.....	.....	.....	.....	.....	4	.....	.....
School.....	28	.....	.....	.....	.....	.....	.....	967	.....	.....	.....	.....	.....	.....	2	.....	.....
Second.....	3087	.....	.....	.....	.....	.....	.....	5	.....	.....
Schuyler.....	215	.....	.....	.....	.....	.....	.....	1	.....	.....
Shirley Hill road..	654	.....	.....	.....	.....	.....	.....	1	.....	.....
Sullivan.....	98	.....	.....	.....	.....	.....	.....	1	.....	.....
Third.....	20	.....	.....	.....	.....	.....	.....	422	.....	.....	.....	.....	.....	.....	2	.....	.....
Thornton.....	456	.....	.....	.....	.....	.....	.....	1	.....	.....
Turner.....	12	.....	.....	.....	.....	.....	.....	2	.....	.....
Varnum.....	80	.....	.....	.....	.....	.....	.....	1	.....	.....
Walker.....	1299	.....	.....	.....	.....	.....	.....	2	.....	.....
Warner.....	950	.....	.....	.....	.....	.....	.....	2	.....	.....
Wayne.....	923	.....	.....	.....	.....	.....	.....	2	.....	.....
West.....	517	.....	.....	.....	.....	.....	.....	1	.....	.....
Wilkins.....	1850	.....	.....	.....	.....	.....	.....	2	.....	.....

[illegible]

Length of force main from low service pumping station to reservoir, 7,130 feet

[illegible][illegible]

* Elm to Main, from Valley.

DISTRIBUTION PIPES AND GATES LAID TO DECEMBER 31, 1894.

SIZE.	Cement-lined pipe.	Cast-iron pipe.	Gates.
20-inch diameter.....	20,560.00 feet.	24,486 feet.	18
14-inch diameter.....	6,125.00 "	8,710 "	12
12-inch diameter.....	7,444.00 "	19,775 "	28
10-inch diameter.. ..	1,508.00 "	21,251 "	32
8-inch diameter.....	5,250.00 "	44,175 "	70
6-inch diameter.....	50,192.50 "	193,051 "	475
4-inch diameter.....	2,644.00 "	17,277 "	56
	93,723.50 feet.	328,725 feet.	691

Cement-lined pipe in use 17.750 miles.

Cast-iron pipe in use 62.259 "

Total pipe 80.009 miles.

632 hydrants.

691 gates.

13 air valves.

METERS.

The number of meters set during the year has been three hundred and five (305).

Total number of meters now in use, twenty-one hundred and eighty-two (2,182).

The number of applications for water has been two hundred and ninety-seven (297).

Total number of applications to date, 4,630.

SERVICE PIPES.

Two hundred and ninety-one service pipes have been laid this year, as follows :

288 1 inch diameter 7,334.7 feet.

1 1½ inch diameter 45.0 "

1 4 inch diameter . . . for fire sprinklers.

1 6 inch diameter . . . for fire sprinklers.

7,379.7 feet.

SERVICE PIPES RELAID.

1	1/2	inch diameter	18.8	feet to	1	inch diameter	18.0	feet.
1	1/2	"	15.8	" to	3	"	17.0	"
9	3/4	"	255.4	" to	1	"	221.0	"
1	3/4	"	33.7	" to	1	"	19.0	"
					3/4	"	20.5	"
1	3/4	"	59.3	" to	3	"	56.0	"
2	3/4	"	50.0	" to	1 1/2	"	50.5	"
1	1	"	17.0	" to	1 1/2	"	17.0	"
2	1	"	48.8	" to	1	"	32.8	"
			<hr/>					
			498.8 feet			451.8 feet.		

Forty-four hundred and sixty (4,460) service pipes have been laid to date, as follows:

33	1/2	inch diameter	.	.	.	.	.	722.6 feet.
1,706	3/4	"	"	.	.	.	.	44,628.7 "
2,603	1	"	"	.	.	.	.	65,918.5 "
22	1 1/4	"	"	.	.	.	.	893.5 "
23	1 1/2	"	"	.	.	.	.	719.2 "
54	2	"	"	.	.	.	.	1,995.7 "
1	2 1/2	"	"	.	.	.	.	57.0 "
5	3	"	"	.	.	.	.	89.8 "
10	4	"	"	.	.	.	.	269.5 "
3	6	"	"	.	.	.	.	"
			<hr/>					

Total length of service pipe . . . 115,294.5 feet.

Number of miles of service pipe, 21.836.

COST OF HIGH SERVICE TO DECEMBER 31, 1894.

Reservoir	\$43,091.87
Gatehouse	2,442.60
Land	9,112.86
Fence	301.75
Road	1,245.12
<hr/>	
	\$56,194.20

Force main		\$73,203.56
Land		375.00
Pumping station	\$24,174.69	
Pumping machinery and boilers	32,626.07	
Traveling crane	643.40	
Grading	878.15	
Stone masonry, bank wall	706.50	
Engineer and team	1,256.96	
Testing pumps	600.00	
Dwelling and barn	4,451.86	
	<hr/>	<hr/>
		\$65,337.63
		<hr/>
		\$195,110.39

The income from sale of water for 1894 has been as follows :

Received for hydrant rent	\$13,925.00
for water by rate	32,176.28
for water by meter	62,501.35
for building purposes	697.80
from fines	227.40
for labor and pipe sold	35.86
for 4 inch pipe laid to Ken- nard block	30.00
for 3 inch pipe laid to Cil- ley block	22.90
for pipe and castings, J. A. Weston	109.90
for pipe and castings, Amos- keag corporation	46.16
of G. G. Griffin, lease	1.00
of F. Brown, lease	1.00
for old house, S. G. Prescott from rent of store, S. G. Pres- cott	100.00
	90.00
from rent of hall, Grange	50.00
from rent of Cochran build- ing, W. G. Brown	36.00

Received for rent from E. C. Camfield	\$36.00	
of Charles Reed for grass .	3.39	
of C. F. Whittemore, for grass on Mills land . .	4.00	
of A. D. Savory for grass on Smith land	5.00	
of Bartholomew for grass on Reed and Neal land .	7.00	
of J. T. Gott for grass at res- ervoir	8.00	
for apples	3.00	
of Sarah Gilbert for grass on Brown land	3.25	
for old cement pipe . .	90.00	
	<hr/>	\$110,210.29

Abatements, \$477.66.

Amount on hand Dec. 31, 1893 . .	\$95,144.16	
received for water bonds, 1894	50,000.00	
received for water rents, etc., 1894	96,285.29	
received for hydrant rentals, 1894	13,925.00	
	<hr/>	
Total receipts, 1894		\$255,354.45
Amount paid for current expenses .	\$24,909.86	
construction expenses	159,289.07	
Hydrant rentals set aside for sinking fund	13,925.00	
Interest on bonds, 1894	38,399.00	
	<hr/>	
Total expenditures, 1894		\$236,522.93

Balance on hand December 31, 1894 .	\$18,831.52
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The premium on water bonds sold in

1893, amount \$200,000, was	\$6,090.00
1894, amount 50,000, was	2,395.00
	<hr/>
Total	\$8,485.00

These amounts have not been credited to the water-works accounts as they should have been.

CLASSIFICATION OF ACCOUNTS FOR 1894.

Superintendence, repairs, renewals	\$16,945.61	
Stationery and printing	293.69	
Office and incidental expenses	2,589.20	
Pumping expenses, low service	1,831.89	
Pumping expenses, high service	2,595.37	
Repairs to dam, canal, and reservoir	202.69	
Repairs to buildings	451.41	
	<hr/>	
Total current expenses for 1894		\$24,909.86
Service pipes	\$3,997.88	
Distribution pipes	33,251.43	
Fire hydrants and valves	3,809.31	
Meters and fixtures	3,922.67	
Lands	27,662.86	
Pumping machinery and buildings	45,429.35	
Reservoir and fence	39,970.45	
Road to reservoir	1,245.12	
	<hr/>	
Total construction expenses for 1894		\$159,289.07
		<hr/>
		\$184,198.93
Sinking fund		13,925.00
		<hr/>
Total		\$198,123.93

Construction Expenses.

Land and water rights	\$90,837.00
Dam, canal, penstock, and races	101,399.16
Pumping machinery, pump houses and buildings	173,242.16
Distribution reservoirs	117,378.58
Force and supply main	88,769.02

Distribution pipes . . .	\$525,202.36
Fire hydrants and valves . . .	54,008.29
Meters and fixtures . . .	42,256.68
Service pipes . . .	60,743.80
Grading and fencing . . .	13,588.26
Tools and fixtures . . .	10,649.35
Boarding and store houses . . .	919.36
Roads and culverts . . .	3,438.61
Supplies . . .	550.39
Engineering . . .	22,176.19
Livery and traveling expenses . . .	2,856.64
Legal expenses . . .	563.79

Total construction to December 31, 1894 . \$1,309,579.64

Current Expenses.

Superintendence, collecting, repairs	\$227,763.90
Stationery and printing . . .	6,411.48
Office and incidental expenses . . .	23,401.68
Pumping expenses at low service . . .	46,956.68
Pumping expenses at high service . . .	2,595.37
Repair of buildings . . .	2,819.36
Repair of dam, canal, races, reservoir	4,809.49

Total current expenses to December 31, '94 \$314,757.96

Interest . . .	\$40,678.51
Highway expenditures . . .	14,000.53
	<u>\$54,679.04</u>

Total amount of bills approved to date . \$1,679,016.64

Interest, discount, and labor performed on highways, transfers, and tools and materials sold . . .	\$63,994.54
Current expenses to Dec. 31, 1894 .	314,757.96
	<u>\$378,752.50</u>

Total cost, exclusive of interest
and current expenses . . . \$1,300,264.14

Interest and discount to Dec. 31, 1893 \$720,435.51
 Interest for 1894 38,399.00

Total interest and discount to

Dec. 31, 1894 \$758.834.51

Amount paid toward interest to Dec.

31, 1893 \$578,237.00

Amount paid toward interest in 1894 . 38,399.00

\$616,636.00

AMOUNT OF WATER BONDS ISSUED TO DECEMBER 31, 1894.

Issued July 1, 1872, rate 6 per cent, principal due

July 1, 1895 \$100,000

Issued January 1, 1872, rate 6 per cent, principal due

January 1, 1897 100,000

Issued January 1, 1872, rate 6 per cent, principal due

January 1, 1902 100,000

Issued January 1, 1887, rate 4 per cent, principal due

January 1, 1907 100,000

Issued July 1, 1890, rate 4 per cent, principal due

July 1, 1910 100,000

Issued January 1, 1892, rate 4 per cent, principal due

January 1, 1910 100,000

Issued August 1, 1893, rate 5 per cent, principal due

August 1, 1913 100,000

Issued November 1, 1893, rate 4½ per cent, principal

due November 1, 1913 100,000

Issued October 1, 1894, rate 4 per cent, principal

due October 1, 1914 50,000

Total \$850,000

STATEMENT OF RECEIPTS.

Year.	Total.	Hydrant rent.	Water by rate.	Water by meter.	Received for building purposes.	Fines.	Labor, pipe, and mate- rial sold.	Rentals and building sold.	Number of meters.
1872	\$573.61						\$573.61		
1873	2,097.60						200.07		8
1874	32,154.07	\$22,425.00	7,987.27	1,436.56	\$119.10	104.18	699.85		98
1875	27,119.15	13,095.00	10,292.13	3,348.11	122.13	120.59	2,245.64		160
1876	38,879.47	16,320.00	16,192.63	6,305.81	72.32	180.16	249.55		166
1877	43,823.30	17,475.00	18,064.51	7,783.09	136.10	233.04	131.56		202
1878	48,874.26	17,970.00	20,255.97	10,090.25	83.60	232.82	241.62		226
1879	53,143.17	18,165.00	21,610.13	12,732.93	81.60	240.64	303.87		251
1880	57,655.25	18,300.00	23,795.96	14,794.34	79.50	210.39	465.06	\$10.00	280
1881	60,215.62	18,780.00	25,336.18	15,554.98	105.60	223.99	203.87	11.00	310
1882	67,630.13	20,130.00	26,803.06	19,898.69	146.65	197.49	443.24	11.00	371
1883	73,458.20	20,520.00	28,838.24	23,431.20	314.65	208.04	125.07	21.00	404
1884	75,580.08	21,350.00	31,724.07	21,329.75	195.10	231.96	738.20	11.00	446
1885	80,404.12	18,900.00	33,597.02	27,425.35	102.50	186.80	181.45	11.00	486
1886	75,129.99	19,750.00	33,062.11	21,573.45	287.40	130.80	320.23	6.00	613
1887	80,518.17	20,437.50	33,497.21	25,277.09	351.70	119.20	819.47	16.00	739
1888	85,643.82	21,000.00	33,864.78	29,838.82	543.80	149.80	243.62	3.00	842
1889	86,700.46	18,240.00	34,140.99	33,596.05	361.95	153.20	205.27	53.00	951
1890	90,463.37	19,880.00	32,431.10	37,009.80	649.90	151.80	298.77	42.00	1,135
1891	76,605.23	4,590.00	30,588.79	40,479.25	494.80	160.40	200.99	91.00	1,313
1892	83,474.79	5,000.00	31,344.24	46,139.35	416.00	168.40	139.80	267.00	1,608
1893	104,170.08	12,750.00	32,603.59	58,103.20	1,033.75	159.60	339.38	180.56	1,895
1894	110,210.29	13,925.00	32,176.28	62,501.35	697.80	227.40	334.82	347.64	2,182

1878, meter rate was changed. 1884, hydrant rates reduced. 1886, meter and other rates reduced. 1889, hydrant rates reduced. 1891 and 1892, received only part of hydrant rent, and nothing from water-troughs or street sprinklers. 1893, hydrant rent and water-closets rate reduced.

The following amounts have been paid over to the city treasurer, and credited to the water-works :

1872, supplies and materials sold	.	.	.	\$573.61
1873, supplies and materials sold	.	.	.	177.07
accrued interest on water bonds sold	.	.	.	193.26
accrued interest on state bonds sold	.	.	.	146.00
water rents	.	.	.	1,920.53
1874, supplies and materials sold	.	.	.	607.89
March 12, highway expenditures, transferred from water account	.	.	.	14,000.53
March 17, interest and discount transferred from water account	.	.	.	12,347.25
September 1, interest and discount transferred from water account	.	.	.	22,361.74

1874, water and hydrant rent, etc.	\$30,233.54
December 29, interest transferred	4,566.25
1875, December 18, one anvil sold	15.00
September 25, engine, crusher, and material sold	2,089.45
water and hydrant rent, etc.	27,119.55
1876, May 20, derrick sold	125.00
May 20, rent of derrick	24.00
water and hydrant rent, etc.	38,879.47
1877, water and hydrant rent, etc.	43,823.30
1878, water and hydrant rent, etc.	48,873.26
old plow sold	1.00
1879, derrick sold	75.00
May 20, water and hydrant rent, etc.	53,068.17
1880, water and hydrant rent, etc.	57,395.25
sale of grass	10.00
level, transit, etc.	250.00
1881, water and hydrant rent, etc.	60,154.62
sale of grass	10.00
derrick	50.00
received of G. G. Griffin	1.00
1882, water and hydrant rent, etc.	67,403.76
received of G. G. Griffin	1.00
of James Baldwin & Co.	175.00
from the sale of grass	10.00
from Goodhue & Birnie	24.37
for old plank	1.00
for use of derrick	15.00
1883, received of G. G. Griffin	1.00
from sale of grass	20.00
for water and hydrant rent, etc.	73,437.20
1884, received of G. G. Griffin	1.00
for stone	5.00
from sale of grass	10.00
from pipe sold and labor	616.20
for water and hydrant rent	74,947.88

1885, received from G. G. Griffin . . .	\$1.00
of B. P. Kimball, for grass . . .	10.00
for labor and pipe sold . . .	13.45
for water and hydrant rent . . .	80,379.67
1886, received from G. G. Griffin . . .	1.00
of B. P. Kimball, for grass . . .	5.00
for wood	37.80
for labor and pipe	282.43
for water and hydrant rent . . .	74,803.76
1887, received for labor and pipe . . .	768.86
of G. G. Griffin	1.00
of C. C. Cole . . . . .	.50
of B. P. Kimball, for grass . . .	10.00
of A. J. Crombie, for grass . . .	5.00
of A. Goodwin, for poles . . .	10.00
1887, received of W. G. Brown	25.00
of T. H. Risdon & Co., for freight . . .	15.11
for water and hydrant rent . . .	79,682.70
1888, received for labor and pipe . . .	227.33
of G. G. Griffin	1.00
of George P. Clark	2.00
of R. D. Wood & Co., gear . . .	16.29
for water and hydrant rent . . .	85,397.20
1889, received for labor and pipe . . .	89.77
of G. G. Griffin	1.00
of B. P. Kimball, for grass . . .	2.00
of W. G. Brown, for rent . . .	50.00
of James Baldwin, for pipe . . .	65.00
of Mr. Clement, for pipe . . .	.50
for water and hydrant rent . . .	86,492.19
1890, received of G. G. Griffin, lease . . .	1.00
of Fletcher Brown, lease . . .	1.00
of George P. Clark, lease . . .	2.00
of B. P. Kimball, for grass . . .	2.00
of W. G. Brown, for rent . . .	36.00
of N. W. Ellis & Co., for pipe . . .	153.00

1890, received of J. H. Dearborn, for pipe . .	\$35.40
for water and hydrant rent . .	99,232.97
1891, received for water and hydrant rent . .	76,313.24
for labor and pipe sold . .	200.99
of G. G. Griffin, lease . .	1.00
of Fletcher Brown, lease . .	1.00
of W. G. Brown, rent . .	21.00
of Mr. Prescott, rent . .	50.00
William Bryant, rent . .	8.00
of B. P. Kimball, grass . .	2.00
of G. W. Reed, grass . .	5.00
of C. H. Patten, grass . .	3.00
1892, received for water and hydrant rent . .	83,067.99
for labor and pipe sold . .	45.55
of T. C. Pratt, for house . .	100.00
for cement-lined pipe . .	94.25
of Grange, for rent . .	50.00
of William Prescott, for barn . .	15.00
for potatoes . .	4.00
for cutting ice . .	10.00
of W. G. Brown, rent . .	21.00
of G. G. Griffin, lease . .	1.00
of F. Brown, lease . .	1.00
of H. N. Hall, use of pasture . .	20.00
of C. F. Whittemore, grass . .	4.00
of Charles Reed, grass . .	4.00
of G. S. Patten, grass . .	7.00
of G. G. Prescott, rent . .	30.00
1893, received from water rents . .	90,900.14
for labor and pipe sold . .	72.88
for old cement pipe . .	73.50
from Queen City Co., laying 6-inch pipe . .	35.00
from Elliott Mfg. Co., laying 6-inch pipe . .	50.00
from Kimball Carriage Co., laying 6-inch pipe . .	51.00

1893, received from Dana & Provost, laying 4-	
inch pipe	\$32.00
from E. C. Blanchard, repairing	
hydrant	25.00
from G. G. Griffin, lease	1.00
from F. Brown, lease	1.00
for grass on Smith land	5.00
for grass on Neal land	3.00
for grass on Mills land	4.00
for molasses	16.56
for use of hall by Grange	50.00
from W. G. Brown, house rent	30.00
from S. G. Prescott, house rent	60.00
for cutting ice on lane	10.00
1894, received from water rents	95,602.83
for labor and pipe sold	35.86
for old cement pipe	90.00
for laying 4-inch main to Ken-	
nard block	30.00
for laying 3-inch main to Cilley	
block	22.90
for pipe and castings from J. A.	
Weston	109.90
for pipe and castings from Amos-	
keag corporation	46.16
of G. G. Griffin, lease	1.00
of F. Brown, lease	1.00
of S. G. Prescott, for old house	100.00
of S. G. Prescott, rent of store	90.00
of Grange, for hall	50.00
of W. G. Brown, rent of Cochran	
residence	36.00
of E. C. Camfield, rent	36.00
of Charles Read, for grass	3.39
of C. F. Whittemore, for grass on	
Mills land	4.00

1894, received of A. D. Savory, for grass on Smith land	\$5.00
of Bartholomew, for grass on Neal land	7.00
of J. T. Gott, for grass at reservoir for apples	8.00
of Sarah Gilbert, for grass on Brown land	3.00
	3.25
Total received for water to date . . .	\$1,482,405.07
Amount appropriated to date	890,000.00
	\$2,372,405.07
Amount of bills approved to date	1,679,016.64
	\$693,388.43
Amount paid toward interest	616,636.00
Amount on hand December 31, 1894 . .	\$76,752.43

CHARLES K. WALKER,
Superintendent.

Uses for which Water is Supplied.

PUBLIC BUILDINGS.

1 Jail.	4 Cemeteries.
26 Churches.	1 Orphanage.
1 Court house.	1 Postoffice.
9 Hose companies.	1 City library.
5 Fire engines.	6 Banks.
2 Hook-and-ladder.	9 Hotels.
2 Opera houses.	1 Masonic Hall.
3 Convents.	1 Odd Fellows' Hall.
4 City hospitals.	3 Halls.
2 Old Ladies' Homes.	30 Schoolhouses.

1 Soldiers' monument.	1 Battery building.
1 Turner Hall.	1 Skating-rink.
4 Fountains.	1 Kitchen.
2 Trust companies.	1 Wardroom.
1 City farm.	1 Gymnasium.
3 Depots.	

MANUFACTURING ESTABLISHMENTS.

1 Hosiery mill.	3 Granite works.
1 Silver-plating.	2 Electric light stations.
2 Iron foundries.	4 Sash and blind shops.
2 Dyehouses.	1 Brewery.
5 Machine shops.	4 Shoeshops.
6 Clothing manufactories.	1 Gas-works.
8 Harness shops.	4 Slaughter houses.
1 Cornice works.	1 Soap factory.
1 Brush shop.	4 Needle manufactories.
9 Carriage shops.	6 Beer-bottling.
12 Cigar factories.	3 Book-binderies.
1 Brass and copper foundry.	1 Paper-mill.
1 Locomotive works.	2 Box makers.
1 Gristmill.	1 Paper box manufactory.
1 Silk-mill.	

MARKETS.

6 Fish.	3 Meat (wholesale).
12 Meat and fish.	

STABLES.

21 Livery.	988 Private.
1 Horse railroad.	

OFFICES.

18 Dentists.	14 Printing.
1 Telephone.	1 Gas.
1 Telegraph.	17 Coal.
2 Express.	

SHOPS.

50 Barber.	3 Currying.
9 Wheelwright.	19 Plumber and gas and water pipe.
18 Blacksmith.	14 Paint.
8 Carpenter.	3 Gunsmith.
2 Tinsmith.	
1 Copper.	

STORES.

4 Auction.	97 Grocery.
32 Drug.	6 Meal.
22 Jewelry.	3 Hardware.
1 Fur.	34 Boot and shoe.
3 House-furnishing goods.	11 Stove.
20 Fancy goods.	17 Gents' furnishing goods.
1 Wholesale paper.	7 Book.
5 Wholesale produce.	1 Leather and Shoe-finders.
24 Dry goods.	3 Music.
12 Candy.	3 Upholstery.
1 Cloak.	9 Undertakers.
16 Millinery.	5 Sewing-machine.
3 Tea.	1 Feather-cleaner.
9 Furniture.	1 Rubber.
1 Wholesale grocer.	

SALOONS.

16 Dining.	98 Liquor.
7 Billiard.	

MISCELLANEOUS.

6 Clubrooms.	9 Greenhouses.
2 Bleacheries.	2 Band rooms.
23 Laundries.	21 Bakeries.
4 Icehouses.	2 Waste.
12 Photographers.	1 Business college.

WATER FIXTURES, ETC.

10,311 Families.	2,701 Sill-cocks.
141 Boarding-houses.	632 Fire-hydrants.
13,108 Faucets.	39 Stand-pipes.
2,871 Wash-bowls.	27 Watering-troughs.
7,118 Water-closets.	5 Drinking-fountains.
447 Wash-tubs.	2,361 Horses.
1,878 Bath-tubs.	94 Cattle.
194 Urinals.	1 Public urinal.

Materials on Hand.

6 hydrants.

PIPE.

8,300 feet 20 inch.	4,116 feet 8 inch.
3,500 feet 14 inch.	1,000 feet 6 inch.
1,176 feet 12 inch.	1,140 feet 4 inch.
2,820 feet 10 inch.	

WHOLE SLEEVES.

2 20 inch.	12 8 inch.
1 14 inch.	27 6 inch.
5 12 inch.	22 4 inch.
4 10 inch.	

BRANCHES.

3 double 6 on 20.	1 single 6 on 20.
4 double 6 on 12.	2 single 10 on 20.
2 double 8 on 12.	1 single 12 on 14.
12 double 6 on 10.	1 single 6 on 14.
7 double 8 on 8.	12 single 6 on 10.
13 double 6 on 8.	1 single 8 on 8.
2 double 4 on 8.	11 single 6 on 8.
9 double 6 on 6.	20 single 6 on 6.

4 double 4 on 6.

1 single 10 on 10.

2 single 4 on 6.

1 10-inch Y.

3 20-inch Y's.

TURNS.

1 20 inch 1-16.

2 8 inch 1-4.

3 10 inch 1-4.

4 6 inch 1-4.

GATES.

1 12 inch.

15 6 inch.

2 10 inch.

5 4 inch.

4 8 inch.

HIGH SERVICE WATER-WORKS.

To the Board of Water Commissioners, Manchester, N. H.:

GENTLEMEN,—The following is a descriptive report of the High Service System of Water-Works for your city.

DATUM.

All the elevations are referred to city base, which is 16 feet below low water of Merrimack river at Granite bridge, or 108.363 feet below the granite step at the City hall. The city base is 110.83 feet above tide water at Portsmouth, N. H.

SOURCE OF SUPPLY.

The pumping station is located on the west shore of the westerly part of Lake Massabesic and near the northerly end of the lake, and is a little less than two miles north of the outlet which supplies water to the low service pumping station. The intake pipe is cast iron, twenty-four inches in diameter, and extends into the lake 255 feet from the shore wall. The end is

covered with a heavy brass screen of three quarter inch mesh, and is eight feet below the top of the dam. The elevation of top of dam is 147 feet. (For details see Water Board Report of 1893.)

PUMPING STATION.

The building consists of engine, boiler, and coal houses, all connected, and the walls are built of common bricks laid in red lime mortar, having granite underpinning, window and door sills.

The underpinning is laid in horizontal courses and the height varies from four to five and one half feet. The brick masonry was finished about the middle of January, 1894. The roofs over the engine and coal houses are supported by wooden trusses and covered with slate. The roof over the boiler house is flat and constructed of large southern pine beams and two-inch spruce plank covered with tarred paper and gravel. The flat portion of the engine house also has a graveled roof. The cornices are made of galvanized iron, and the finials, hip and ridge rolls are copper. The engine room floor is made of two-inch spruce plank covered with southern pine one and one fourth inches thick.

The floor in the boiler room is tar concrete and brick, and in the coal room is tar concrete. The elevation of the engine house floor is 158.5 feet and the boiler room floor is two feet and eight inches lower. The chimney is circular in plan and 100 feet and 9 inches in height above the foundation, and built of common bricks laid in red lime mortar, with an addition of about one third cement. The first seven feet were laid in cement mortar.

The base of the chimney is eleven feet in diameter and at the smaller section near the top it is seven feet three inches in diameter. The cap is cast iron, made in eight sections and bolted together with composition bolts, and weighs three and four tenths tons.

The chimney has an inner shaft four feet inside diameter which extends to the top, and the smoke flue enters the chimney eighteen feet above the boiler room floor. The foundation is nine-

teen feet square and starts on a layer of compact gravel seven feet below the surface of the ground. There is an opening at the base of the chimney for taking out the soot.

The pump well is located at the east side of the engine room cellar and the east wall is also a portion of the engine house foundation. The well is ten feet eight inches wide by twenty-one feet eight inches long, and the elevation of the bottom is 136.5 feet. The sides are built of cement rubble masonry, and the inside of the well is lined with bricks four and eight inches in thickness, and the bottom is cement concrete and bricks, and is water tight. The screen chamber is located at the southeast corner of the well, and there are two sets of copper wire screens of one fourth inch mesh. At the end of the 24-inch intake pipe there is a sluice gate to shut off the water from the well when necessary. Scales have been built into the floor of the boiler house for weighing all the coal used in the boilers.

At the rear of the pumping station a retaining wall 178 feet in length has been built of dry rubble along the lake and the grounds graded and sown with grass seed.

During the fall a dwelling house and stable have been built near the pumping station for the use of the engineer. All the work was done under contract by the Head & Dowst Co. of this city.

ENGINES AND BOILERS.

As soon as the engine room was covered, work was commenced on the foundations for the engines (Jan. 24, 1894) and finished February 2. The bottom is built of granite about one foot thick, and the upper part of the foundations is built of bricks laid in cement mortar, excepting the top, which is finished with fine cut granite.

There are two Worthington high duty pumping engines, each having two high pressure cylinders 30 inches diameter, and two double-acting water plungers 15 $\frac{1}{4}$ inches diameter. The engines will deliver 51.62 gallons per revolution when making the stipulated stroke of 18 inches, after making a deduction of 5 per

cent for slip. Each engine was guaranteed to deliver into the reservoir 3,000,000 gallons in twenty-four hours against a dynamic head of 254 feet. The static head is about 250 feet.

On June 26 the engines commenced to deliver water into the low service reservoir and pumped for seven days, and the pumps at the old pumping station were idle four days. Pumping into the high service reservoir was commenced September 19.

There are two vertical Manning boilers six feet in diameter, each containing 180 tubes $2\frac{1}{2}$ inches in diameter and 15 feet in length. There is room in the boiler house for two additional boilers.

FORCE MAIN.

The force main is cast iron and 20 inches in diameter and was laid during the fall of 1893, excepting a short piece at the reservoir which is 24 inches in diameter. There are two classes of pipe: Class B varies in weight from 2,400 to 2,464 pounds, and class A from 1,980 to 2,080 pounds per lengths of 12.46 feet. Class B is laid from the engine house to Mr. C. H. Bartlett's meadow, and from this point to the reservoir is of class A.

There are 7 gates, 13 hydrants, 6 air valves, 2 10-inch and 5 6-inch blow-offs located along the force main. From the engine room cellar to the gate chamber at the reservoir there are 19,076 feet of 20-inch and 80 feet of 24-inch pipe, making a total distance of 3.63 miles.

Water was let into the force main from the low service reservoir April 10.

RESERVOIR.

Work of excavating the ledge was continued during the winter and was practically finished April 23. On April 19 the contractors commenced to lay cement on the bottom, and the wall was started at the northeast corner on the 24th. Many of the depressions in the bottom were filled to subgrade with the best puddling material found on the work, which was thoroughly wetted and afterwards made compact by constant teaming over the bottom. There were several fissures in the ledge along the

south side which were filled with cement grout. The bottom is covered with cement concrete, having an average thickness of ten inches, including a layer of cement mortar about three fourths of an inch thick. The face of the ledge on the north, east, and west sides is covered with concrete to the top, which varies in thickness from six inches to three feet, and the average thickness is about one foot. The excavation did not furnish suitable stone for the face of the wall. The face stone and coping came from Bodwell's quarry and the back of the wall came from the excavation. The wall is laid in cement mortar having a batter on the face of three inches to the foot and is thirty inches wide at the top under the coping. The coping is the full width of the wall, one foot thick, and the end joints are filled with Portland cement.

All the corners of the reservoir are circular in shape excepting the one at the southeast which is cut off at an angle of forty-five degrees, so as to form the front wall of the gate chamber and to give more embankment, thus strengthening the reservoir at this place.

The bottom of the reservoir is not a uniform plane, as the surface was governed largely by the way in which the excavation could be made. The wall at the northeast corner is nineteen feet and at the southwest corner twenty-two feet high.

The bottom has a slope towards the drainpipe at the gate chamber, excepting a small portion at the southwest corner, which is nearly two feet below the drainpipe. At this place the rock was very rotten, being mostly composed of mica, and it was considered advisable to take out this objectionable material even if there was a small portion below the grade originally intended. To have filled it to grade with concrete would have incurred quite a large expense without giving sufficient benefit, but the depression will form a place for the deposit of mud, which is desirable.

Six springs were found along the north side and three near the southwest corner. Small iron pipes were built into the masonry at these places. At the time the reservoir was filled only two

were draining a very small quantity of water into the reservoir. The top of the embankment is 10 feet wide, including the masonry, and has an outward slope of two to one, and was made in horizontal layers of the excavated earth, thoroughly wetted and made solid by constantly teaming over it and by ramming the portions nearest the wall. The outside was covered with loam found on the work and sown with rye and grass seed. The elevation of the top of the embankment is 401 feet and high water is 3 feet lower.

The inside of the gate chamber is 15 feet wide by 15 feet 6 inches long and 20 feet deep. It is divided into two compartments, one for the weir and the other for the screens. There are four 20-inch sluice gates; two of them are located 8 feet apart vertically, so that water can be drawn from two levels. When the reservoir is full it would be better to draw through the upper gate, for should an accident happen to the force main, there would be less liability of a large quantity of water being drawn off. A permanent weir of southern pine, having its edges of steel, is built into the masonry. The elevation of the crest is 397.29 feet.

The inside of the reservoir was finished August 21. On September 19 water was pumped into the reservoir by the Worthington engine, and on the 21st water was let into a portion of the low service pipe system. Since filling the reservoir the gates have been closed and tests have been made. No leakage was discovered and the reservoir is believed to be tight. The reservoir contains 4,000,000 gallons above the bottom of the outlet pipe. The work was done under contract by Trumbull & Ryan, contractors, of Boston, Mass. The cement used was from F. O. Norton Cement Co., New York.

GATE HOUSE.

The exterior walls are composed of stone having quarry faces, which came from the reservoir excavation, care being taken to select those having the most color, and the trimmings are granite

from Bodwell's quarry. The interior walls were built of the best face-brick laid in red lime and cement mortar.

The floor is supported by brick arches and the top will be covered with Portland cement mortar. Care should be taken not to have the floor come in contact with the channel beams which support the sluice-gate standards so as to prevent the floor from being cracked.

The ceiling is Georgia pine, nailed to the rafters, and will have two coats of hard oil finish.

The gate house is nineteen feet ten inches square and has a hip roof covered with red slates and terra cotta hip rolls. The work remaining to be done is cementing the floor, painting the woodwork, and pointing the joints of the exterior walls with Portland cement, colored red. In time it is probable that the reservoir grounds will form an addition to the Derryfield park, of which the gate house will be a prominent feature. This work was done by the city, and Mr. Edward House was the foreman in charge. A circuitous driveway has been nearly completed from Old Bridge street to a point north of the reservoir. This affords an easy way of reaching the summit and obtaining an excellent view of the city and surrounding country.

DISTRIBUTION.

The low service has been connected to the high service force main by laying a 12-inch cast-iron pipe in Lowell street, from Mammoth road to Ashland street. This work was done by the superintendent, Charles K. Walker. The upper portion of the low service is now supplied from Oak Hill reservoir and the northerly portion of the city can be supplied with water by laying a 10-inch cast-iron pipe from Ashland street, in Pearl west to Maple street, in Maple to Brook street, and in Brook street to Union street. From Brook street the pipes can be extended into this northerly district, giving it the advantages of the high pressure.

At your request we have made an approximate estimate of the cost of a high pressure water-supply for fire service in the cen-

tral portion of the city, which will give pressures varying from 110 to 130 pounds per square inch, and hydrant streams varying in distance from 170 to 200 feet.

It is proposed to locate four-way post hydrants with independent valves for each line of hose, not over 300 feet apart on Elm street and 400 feet on the streets between Elm and Union streets. The hydrants on the low service pipes generally have steamer connections and would furnish an additional supply of nearly the same pressure by attaching the steamers to them if necessary.

It is proposed to lay a 16-inch cast-iron pipe from the 20-inch pipe in Mammoth road, in Massabesic street to Valley, and in Valley street to Elm street, and in Elm street to Brook street; and also to lay a 12-inch pipe in Union street from Auburn to Orange street.

There would be 8-inch pipes laid in Auburn and Cedar streets, Lake avenue, Central, Merrimack, Manchester, Hanover, Amherst, Concord, Lowell, Bridge, Pearl, and Orange streets, connecting the 16 and 12-inch pipes in Elm and Union streets.

The upper portion of the system at Brook street would be supplied by the 12-inch pipe in Lowell street, thus giving two lines of supply pipes, which is necessary to prevent the supply from being cut off in case an accident should happen to the Valley-street pipe, if only one connection was made with the high service system.

The hydrants are to be connected to the mains with 6-inch pipe, each having a gate to shut off the hydrant, if necessary, for repairs.

The following is the approximate estimate of the above system :

8,570 feet 16-inch iron pipe, Valley and Massabesic streets, at \$2.75	\$23,567.50
6,700 feet 16-inch iron pipe, Elm street, from Valley to Brook, at \$3.00	20,100.00
4,380 feet 12-inch iron pipe, Union, from Orange to Auburn, at \$1.90	8,322.00

19,500 feet 8-inch iron pipe, from Elm to Union street, in Orange, Pearl, Bridge, Lowell, Concord, Amherst, Hanover, Manchester, Merrimack, Central streets, Lake avenue, Cedar, and Auburn streets, at \$1.30	\$25,350.00
7 16-inch gates, including brick wells, at \$145.00	1,015.00
2 12-inch gates, including gate boxes, at \$44.50	89.00
26 8-inch gates, including gate boxes, at \$23.50	611.00
84 4-nozzle hydrants with independent valves, including 6-inch pipe and gates from main, at \$107	8,988.00
Connection with 20-inch pipe, Massabesic street and Mammoth road, at \$100	100.00
	<hr/>
	\$88,142.50
Contingencies	8,817.50
	<hr/>
	\$96,960.00

In closing, we wish to express our thanks to the board, superintendent, and water registrar for their constant co-operation and many acts of kindness.

Respectfully submitted.

GEORGE S. RICE & GEORGE E. EVANS,

Civil Engineers.

BOSTON, Mass., January 1, 1895.

REPORT ON TEST OF BOILERS AND PUMPS.

OFFICE OF

DEAN & MAIN, MECHANICAL AND MILL ENGINEERS,

EXCHANGE BUILDING,

53 STATE STREET, Rooms 1027 and 1028.

BOSTON, December 14, 1894.

To the Water Board, Manchester, N. H.:

GENTLEMEN,—On October 11, 1894, I made a duty trial and capacity test of the Worthington High Duty Pumping Engine No. 834, at your water-works, and on November 2, 1894, a similar trial of the engine No. 835 at the same place.

The following extract from the contract shows the guarantees and determinations to be made :

“ The party of the first part guarantees that when properly supplied with steam, and the water free from air, each of these engines will be capable of delivering three million (3,000,000) United States gallons of water in twenty-four (24) hours, when running at a piston speed of one hundred and twenty (120) feet per minute, when furnished with an effective steam pressure of not less than one hundred and fifty (150) pounds per square inch at the engine, and will deliver this quantity against a total head of two hundred and fifty-four (254) feet, including friction in twenty thousand (20,000) feet of twenty (20) inch main, or a total load on the plungers (including suction) not exceeding one hundred and twenty (120) pounds per square inch.

“ The party of the first part further agrees that when the engines are running at the above-mentioned piston speed, against the above-mentioned load, and supplied with dry steam at not less than the above-mentioned effective pressure, they will be capable of developing a duty of one hundred and five million (105,000,000) foot-pounds with each one hundred (100) pounds of coal consumed, based upon a boiler evaporation of ten (10) pounds of water per pound of coal from the temperature of the water of the air pump delivery.”

“ The duration of the tests shall not exceed twelve (12) hours and they may be waived altogether by mutual agreement.”

The wording of this contract is somewhat ambiguous, but I have interpreted it to mean that the engine is to receive benefit from the steam exhausted by the various auxiliary pumps, of which there are four, and that the duty is to be computed on plunger displacement.

In accordance with this interpretation a preliminary trial was run with each engine, in order to determine the temperature at which the feed water would enter the boiler when utilizing the exhaust steam referred to and also the jacket and separator drains, as it is impracticable to utilize hot fluids when weighing the feed

water. In computing the various items herewith given, allowance was made for any differences that existed between the temperature of the air pump discharge during the preliminary and final trials. Furthermore, the effect of returning the jacket water, on feed temperature, was computed from the jacket condensation as actually weighed by special means during the final trials, and from its temperature as taken at its discharge.

The temperatures and items dependent thereon, as given in this report, are therefore those that would have been realized if the engines had been run during the duty trials under the everyday conditions of operation.

The results of the boiler trials are, however, reported as actually obtained, as the efficiency of the boiler is not affected by temperatures different from those generally existing, to any important extent.

DESCRIPTION OF THE PLANT.

There are two vertical Manning boilers, each of which is of sufficient capacity to run one pumping engine. These boilers were built by the Atlantic Works of East Boston, Mass. The boiler farthest from the engines was used on both trials.

The engines are of the Duplex Worthington High Duty type, having, as usual, two high and two low pressure cylinders, the high duty compensating cylinders being at the outboard ends of the pumps.

There are two direct acting feed pumps in the boiler room, two direct acting pumps for charging the air vessels and accumulators of the engines, and a jacket return pump for each engine. Each engine requires the use of four of these pumps when in operation.

METHOD OF CONDUCTING THE TRIALS.

The boiler and engine in each trial were operated some two hours before the boiler trial began, and while in their regular working condition, with steam at full pressure and the engine making the proper speed, the engine was stopped. The fire was

then drawn and a new one started with a weighed quantity of wood. As soon as steam was being freely made, the engine was started and run one half hour before the engine trial was considered to have begun. The feed water used by the engine from this time on until the engine trial stopped, which was some time before the boiler trial ended, was obtained. The engine was kept running until the coal in the boiler was burned out as much as possible, consistent with ending the boiler trial with the same pressure and height of water as those existing at the beginning.

It is apparent from this that the boiler trial was of longer duration than the engine trial.

The coal, feed water, and jacket and separator drains were weighed on correct scales. The strokes of the water plungers were obtained by observations taken every five minutes, and indicator diagrams were taken every half hour. The head of water against which the plungers worked was obtained by reading a refined pressure gauge attached to the discharge pipe of each engine, and the distance of this gauge above the water in the suction well, as shown by a graduated float rod.

The steam pressures at the engine and boiler, the temperatures of the feed water, steam at boiler and engine, and of the air pump and jacket discharges were taken at regular intervals.

During the trial of Engine No. 834 the temperatures were such that the duty, according to the contract conditions, was computed with an actual evaporation of 10.90 lbs. of water per pound of coal, and of Engine No. 835 an actual evaporation of 10.87 lbs. of water per pound of coal.

The pressures, heads, and plunger speeds differ somewhat from those specified in the contract, but were accepted by the contractor's representative present.

The indicator springs were tested under steam by the writer.

The following are the leading dimensions of the boiler and engines, and the results of the trials :

BOILERS.

1. Type, Manning Vertical.
2. Inside diameter of shell, 60 inches.

3. Inside diameter of fire-box, 72 inches.
4. Outside diameter of fire-box, $79\frac{1}{2}$ inches.
5. Distance from grate to crown sheet, 42 inches.
6. Clear length of tubes, 14 feet 11 inches.
7. Outside diameter of tubes, $2\frac{1}{2}$ inches.
8. Number of tubes, 182.
9. Grate surface, 28.27 square feet.
10. Water-heating surface, 1,387.65 square feet.
11. Superheating surface, 481.72 square feet.
12. Ratio of grate to water-heating surface, 1 to 49.08.
13. Ratio of grate to total heating surface, 1 to 66.11.
14. Number of boilers in use, 1.

ENGINES.

15. Type, Worthington horizontal high duty duplex compound.
16. Diameter of high pressure cylinders, 15 inches.
17. Diameter of low pressure cylinders, 30 inches.
18. Diameter of high pressure piston rods, $3\frac{1}{2}$ inches.
19. Diameter of low pressure piston rods, $3\frac{1}{2}$ inches.
20. Diameter of plunger rods, 3 inches and $3\frac{1}{2}$ inches.
21. Diameter of plungers, $15\frac{1}{4}$ inches.
22. Nominal stroke of pistons and plungers, 18 inches.

RESULTS OF BOILER TRIALS OCT. 11 AND NOV. 2, 1894.

	Oct. 11.	Nov. 2.
23. Duration of trial, hours . . .	13.15	13.17

AVERAGE PRESSURES.

24. Steam pressure in boiler by gauge, pounds	140.00	142.30
25. Atmospheric pressure by barom- eter, pounds	14.61	14.79
26. Absolute steam pressure, pounds .	154.61	157.09
27. Force of draught of water, inches .	1-4	5-16

AVERAGE TEMPERATURES.

	Oct. 11.	Nov. 2.
28. Of external air, degrees	54	54
29. Of fire room, degrees	66	72
30. Of steam, degrees	393	392
31. Of escaping gases, degrees *	397	* 380
32. Of feed water on entering boiler, degrees	60	54

FUEL.

33. Total moist coal consumed, pounds	4,747.0	4,089.0
34. Moisture in coal, per cent	2.1	2.5
35. Wood consumed, pounds	162.0	286.0
36. Dry coal consumed, plus coal equivalent of wood, pounds	4,712.0	4,101.0
37. Total weight of refuse, pounds	502.0	354.0
38. Total percentage of refuse	10.7	8.6
39. Total combustible, pounds	4,210.0	3,747.0
40. Dry coal consumed per hour, pounds	358.0	311.0
41. Heat value of 1 pound of coal by calorimeter, British thermal units		13,463
42. Heat value of 1 pound of coal by analysis, British thermal units		14,241
42-A Heat value of 1 pound of combustible, by analysis, British thermal units		15,260

QUALITY OF STEAM.

43. Number of degrees superheated	33	30
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WATER.

44. Total water pumped into boiler, pounds	38,296	36,392
45. Water evaporated, corrected for quality of steam, pounds	38,818	36,841

* These temperatures are too low on account of air leakage into the flue.

	Oct. 11.	Nov. 2.
46. Equivalent water evaporated into dry steam from and at 212° Fahrenheit, pounds	46,775	44,651
47. Equivalent water evaporated into dry steam from and at 212°, per hour, pounds	3,558	3,383

ECONOMIC PERFORMANCE.

48. Water evaporated per pound of dry coal, including superheating, pounds	8.24	8.98
49. Equivalent water evaporated per pound of dry coal from and at 212°, pounds	9.92	10.89
50. Equivalent per pound of combustible from and at 212°, pounds	11.11	11.92
51. Total heat derived from a pound of dry coal, British thermal units	9,590.00	10,517.00
52. Total heat derived from a pound of combustible, British thermal units	10,731.00	11,482.00
53. Efficiency of boiler based on coal by item 42, per cent		73.80
54. Efficiency of boiler based on combustible, per cent		75.24

RATE OF COMBUSTION.

55. Dry coal actually burnt per square foot of grate, per hour, pounds	12.64	11.00
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RATE OF EVAPORATION.

56. Water evaporated from and at 212° per square foot of heating surface, per hour, pounds	2.56	2.44
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COMMERCIAL HORSE POWER.

	Oct. 11.	Nov. 2.
57. On basis of $34\frac{1}{2}$ pounds of water evaporated per hour from and at 212° , H. P.	103	98

ANALYSIS OF COAL USED ON NOV. 2, GEORGES CREEK CUMBERLAND.

Moisture, .60 per cent; carbon, 80.15 per cent; hydrogen, 4.94 per cent; nitrogen, 1 per cent; oxygen, 5.76 per cent; ash, 6.68 per cent; volatile sulphur, .87 per cent. Total, 100 per cent.

RESULTS OF ENGINE TRIALS OCT. 11 AND NOV. 2.

	Oct. 11.	Nov. 2.
58. Number of engine	834	835
59. Duration of trial, hours	12	11
60. Total number of double strokes	27,925	26,537
61. Average length of stroke, right plunger, feet	1.578	1.556
62. Average length of stroke, left plunger, feet	1.575	1.568
63. Piston and plunger speed per minute, right, feet	122.400	125.120
64. Piston and plunger speed per minute, left, feet	122.170	126.090

AVERAGE TEMPERATURES.

65. Of engine room, degrees	76.9	77.0
66. Of external air, degrees	55.0	57.0
67. Of main feed water (air pump discharge), degrees	76.9	79.4
68. Of main feed water, after passing heater, degrees	147.0	147.3
69. Of jacket, etc., drain, degrees	346.3	348.0
70. Of mixture of feed waters at boiler, degrees	171.0	171.1

	Oct. 11.	Nov. 2.
71. Of water in pump well, degrees .	60.0	54.0
72. Of steam near engine, degrees . . .	.	384.0
73. Superheat of steam near engine . . .	.	23.4

AVERAGE PRESSURES.

74. Of atmosphere by barometer, pounds	14.61	14.79
75. Of steam at boiler by gauge, pounds	140.00	142.30
76. Of steam at boiler, absolute, pounds	154.61	157.09
77. Of steam at engine by gauge, pounds	139.40	139.80
78. Of steam at engine, absolute, pounds	154.01	154.59
79. Vacuum by gauge, inches	26.75	27.40
80. Total water pressure, pounds	116.92	117.37
81. Equivalent head, feet	270.08	271.14

STEAM USED BY ENGINE AND AUXILIARIES.

82. Dry steam (cor. for superheat) charged to cylinders, pounds .	31,579.00	29,677.00
83. Dry steam used by jackets, etc., pounds	4,357.00	4,029.00
84. Dry steam used by plant, pounds .	35,936.00	33,706.00
85. Percentage of dry steam used by jackets, etc.	12.12	11.93
86. Dry steam used per hour per I. H. P., pounds	18.86	18.30
87. Dry steam used per hour per pump, H. P.	19.84	19.68

BRITISH THERMAL UNITS USED BY ENGINE AND AUXILIARIES.

88. Per pound of dry steam used by cylinders and pumps, B. T. U.	1,076.50	1,076.31
89. Per pound of dry steam used by jackets, etc., B. T. U.	874.30	872.61
90. Heat passing through cylinders and pumps, B. T. U.	33,994,795.00	31,941,639.00

	Oct. 11.	Nov. 2.
91. Heat passing through jackets, etc., B. T. U.	3,809,325.00	3,515,746.30
92. Total used by plant during trial, B. T. U.	37,804,120.00	35,457,381.00
93. Used by plant per minute per I. H. P.	330.00	321.00
94. Thermodynamic efficiency of plant, per cent	12.85	13.21

AVERAGE POWERS, ETC.

Average number of "revolutions" per minute	38.785	40.208
Average piston speed, feet per minute	122.290	125.120
Average mean effective pressure, high pressure cylinder, pounds	51.450	50.950
Average mean effective pressure, low pressure cylinder, pounds	18.290	19.180
Horse power developed by high pressure cylinders	63.720	64.800
Horse power developed by low pressure cylinders	95.180	102.540
Horse power developed by both cylin- ders	158.900	167.340
Percentage of power developed by high pressure cylinder	40.100	38.730
Percentage of power developed by low pressure cylinder	59.900	61.280
Horse power of plungers	151.050	155.720
Friction horse power	7.850	11.620
Friction of mechanism, per cent . .	4.940	6.930
Efficiency of mechanism, per cent .	95.060	93.070

COAL.

Coal used, per indicated horse power, per hour, pounds	2.070	1.840
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CAPACITIES.

	Oct. 11.	Nov. 2.
Water displaced by plungers in 24 hours, gallons	3,189,105	3,275,563
Water delivered over weir in 24 hours, gallons	3,029,650	3,097,320
Slip of plungers, per cent	5	5.44

DUTIES.

On contract basis by plunger displacement, foot-pounds	108,852,782	109,381,000
On contract basis by weir measurement, foot-pounds	103,490,857	103,517,500
Per 1,000,000 heat units by plunger displacement, foot-pounds	94,933,739	95,665,111
Per 1,000,000 heat units by weir measurement, foot-pounds	90,257,458	90,537,666
Per 100 pounds of coal by plunger displacement, foot-pounds	89,409,000	100,088,456
Per 100 pounds of coal by weir measurement, foot-pounds	86,272,882	94,725,391
Per 1,000 pounds of dry steam by plunger displacement, foot-pounds	99,868,535	100,634,849
Per 1,000 pounds of dry steam by weir measurement, foot-pounds	94,949,000	95,240,622
Excess of capacity over contract requirement, per cent	6.30	9.20
Excess of duty over contract requirement, per cent	8.48	8.93

The amount of the friction of the mechanism will decrease as the engines are subjected to more service. The large amount of the friction of engine No. 835 is partly attributable to a dry and hot trunnion bearing, and to having been used less than engine No. 834.

Respectfully submitted.

F. W. DEAN.

REPORT
OF THE
STREET AND PARK COMMISSION.

REPORT OF THE STREET AND PARK COMMISSION

FOR THE YEAR 1894.

To the City Councils of the City of Manchester :

According to instruction, last clause of section 1, "Act establishing a Board of Street and Park Commissioners for the City of Manchester," the commissioners have the honor to make a detailed report to the city councils of the doings of said board for the year ending December 31, 1894.

Rules and Regulations.

The Board of Street and Park Commissioners have full charge and management and control of the building, constructing, repairing, and maintaining of the streets, highways, lanes, side-walks, bridges, public sewers and drains, and of the public parks and commons, in the city of Manchester.

They have the expenditure of all the appropriations which the city councils vote for such purposes from year to year. All bills for expenditures from such appropriations are to be approved by said board before the same are paid by the city treasurer. The board has for such purposes all the powers now by law vested in the board of mayor and aldermen, city councils, and the highway surveyors of the various districts of said city. They appoint all subordinate officers, agents, and other persons to carry out the provisions of the act by which the street commissioners are created, and to fix their compensation.

They can make such rules and regulations for their own government and for the conduct of all such subordinate officers, agents, and other persons, and for the control and management of the horses, wagons, tools, buildings, and other property provided by the city of Manchester for the performing of the aforesaid works as they may deem expedient.

They also have the power to regulate the placing of encumbrances in the streets, and the moving of buildings through the streets and highways of the said city, and the construction and maintenance in, over, and along the highways of said city of all wires, pipes, and other structures belonging to private corporations or individuals, which now or hereafter may be permitted, by vote of the mayor and aldermen, to be placed in, over, and along said highways.

They shall adopt plans for the development and improvement of the public parks and commons, and shall make such rules and regulations for the care thereof as they shall deem expedient.

The board of commissioners is authorized to provide for the performance of any of said works by contract, and in so doing to call for proposals for doing such work, and to make a contract therefor, in the name and behalf of the city, with the lowest responsible bidder who shall furnish proper security for the faithful performance of his contract. But no such contract shall provide for the expenditure of any sum of money greater than the amount appropriated for such purposes by the city councils.

The important duties conferred upon the board of street and park commissioners by law, the many persons to be affected, and the large expenditures thereby placed in their control and supervision, render it necessary that some specific rules should be issued for the guidance of the public and the employees of the city.

The rules hereby formulated will be altered, amended, or added to from time to time, as the board of commissioners may think it necessary.

RULE 1. No new highways can be built by the street commissioners until the same have been legally laid out by the board of

mayor and aldermen and the construction of the same ordered by them, and a sum of money sufficient for their completion appropriated.

RULE 2. No new sewers can be built until the same have been laid out and an appropriation for the construction thereof provided by the city.

RULE 3. The ordinary care and repairing of sewers will be maintained by the commissioners to the extent of the appropriations.

RULE 4. The commissioners can enter into no contract with any member of either branch of the city councils to furnish supplies to or do any work for the city, or with any firm of which any member of the city councils is a partner.

RULE 5. The board of commissioners can enter into no contract with any member of their own board, or with any firm in which a member of their own board is a partner.

The following rules have been adopted by the board :

1. Any person damaging any fence erected by the city for the protection of the highway or inclosing city lands under the charge of or in use by the city commission, or damaging any building in their charge, will be prosecuted to the full extent of the law, and city employees are required to be vigilant in bringing to the notice of the commission any injury so inflicted.

2. All repairs inside of buildings will be made under the authority of the street commission ; outside repairs will be referred by the commission to the city councils.

3. Before the commencement of any new sewers or new highways, by order of the commission, the city engineer will be required to make a careful estimate of the cost of the work to be commenced, and all the grades must be established, and land damages, if any, to parties abutting thereon, awarded by the board of mayor and aldermen.

4. Whenever the sum appropriated by the city councils is nearly exhausted and there remains more work to be done on jobs already commenced, the cost of which will exceed the bal-

ance of the unexpended appropriation, application will be made to the city councils for more money, and the work suspended until said application is granted.

5. All contracts and agreements made by the street commissioners shall be in writing and signed by the parties thereto, and a certified copy of the same furnished to the city auditor and city clerk, if requested.

6. A record of all bids made by contractors shall be kept by the clerk of the board and open to examination by any city official.

7. No sale of public property in charge of the street commission shall be made by any employee, unless so authorized by the street commission in writing, and a return of the articles sold, with the amount received, shall be made to the clerk of the board and by him paid to the city treasurer. Any violation of this rule will be the cause for immediate dismissal.

8. In all contracts or agreements made by the street commission there should be inserted an expressed condition that no member of the city councils, or officials, or employee of the city in any of its departments, shall be admitted to any share or part of such contract or agreement. The payments will be made weekly on rolls prepared and approved by the commission and the city auditor.

9. No payment for the fraction of a week will be made in advance of the regular payment.

10. No employee shall leave his work without reporting to the foreman.

11. All employees will be required to give strict attention to their work during the hours of labor.

12. Any employee found intoxicated on the work or having liquor in his possession will be promptly discharged.

13. No smoking will be allowed in the buildings or shops.

14. Foremen of the different gangs will be held responsible for the tools and materials used under their charge, and neither materials nor tools shall be loaned or given away under any circumstances.

15. Positively no admittance, except on business, to the city yard, the city stables, or any other inclosures or buildings under the care of this commission.

16. All employees under the street and park commission are absolutely prohibited from having any interest, direct or indirect, in any contract for the supply of materials or labor, or in the hire of any vehicle or team, or in any moneyed account whatsoever, other than their daily wages, in connection with the street, sewer, and park business of the city.

17. A violation of any of the foregoing rules will be considered sufficient cause for the discharge of any employee.

18. The office of the street and park commission will be open from 8 to 12 A. M., and from 2 to 5 P. M. A daily meeting of the commissioners will be held at 2 o'clock P. M., except when otherwise employed.

STREET AND PARK COMMISSION DEPARTMENT APPROPRIATIONS.

Repairs of highways, new highways, watering streets, paving streets, macadamizing streets, grading for concrete, scavenger teams, street sweeping, bridges, city teams, sewers repaired, new sewers, commons, Stark and Derryfield parks, snow and ice.

The attention of all persons dealing with the street and park commission is called to the following:

All orders for supplies purchased by the commission or their agents will be written by the clerk, and all persons furnishing said supplies are to fill in the official blank on back of written order, giving prices of supplies in detail.

These order blanks are to be returned to the clerk by the person presenting the order. In addition, the person furnishing supplies is to make out a regular monthly bill on blanks supplied by the commissioners, and all persons are to send said monthly bills on or by the 18th of each month to the office of the commission.

Per order of street and park commission.

ANNUAL STATEMENT.

The duties of the street and park commission, set forth in the

act of legislature passed March 29, 1893, cover a very important department of municipal government, and one in which our citizens justly take pride and interest. Each year brings a greater demand for extension of streets and building of new highways, a greater outlay of materials for the construction of sewers and drains, a careful consideration of ways and means for enlarging and improving our parks and commons, and a general oversight of methods adopted by other cities in caring for the welfare of their citizens, and an economical expenditure of funds allotted for this department. The commissioners, aware of the importance of their trust, have thoroughly planned the work and conscientiously carried it out during the last year, and they submit their report herewith with the feeling that much has been accomplished, but still there remains much to be done, and it is certain that the best class of our community will be willing and ready to uphold all honestly directed efforts for a better order of things, and a more business-like method of conducting this branch of municipal affairs.

Very early in the season the board began preparations for the season's work by asking for bids for sewer pipe and brick. Bids for furnishing sewer pipe were received from the following: George D. Goodrich, Boston, Mass.; Waldo Bros., Boston, Mass.; Portland Stoneware Co., Boston, Mass.; Pike & Heald Co., and Thos. A. Lane Co., Manchester. The contract was awarded to George D. Goodrich for Akron pipe, he being the lowest bidder.

Bids to furnish brick for the sewers were received from the following: W. F. Head & Son, Hooksett, N. H.; H. T. Simpson, Suncook, N. H.; F. C. Towle, Hooksett, N. H.; Granite State Co., Epping, N. H.; Mead & Mason Co. and S. C. Forsaith Co., Manchester. The contract was awarded to W. F. Head & Son, they being the lowest bidders.

The commissioners next called for bids for castings, cement, corner, cesspool, and curb stone, and lumber. Bids to furnish castings were sent in by the Manchester Iron Foundry, Manchester Locomotive works, C. H. Hutchinson Co., S. C. Forsaith Ma-

chine Co. The C. H. Hutchinson Co. were awarded the contract, their terms being more favorable to the city.

Bids on cement were made by Freeman & Merrill, Adams & Tasker, Henry W. Parker, Dunlap & Wason Co., Clarence R. Merrill, DeCourcy, Holland & Marshall, all of Manchester. Contract awarded Dunlap & Wason Co., lowest bidders.

On corner, cesspool, and curb stone, the following bid : Warren Harvey, Manchester, and Charles A. Bailey, Suncook, N. H. The bids were divided and Warren Harvey was given contract to furnish curbing and Charles A. Bailey contract to furnish circles. In nearly all cases rates were obtained lower than the preceding year.

Favorable rates were obtained on bids to furnish bridge plank and sewer plank from A. C. Wallace and S. C. Forsaith Machine Co., both of Manchester. Contract awarded A. C. Wallace.

The contracts made during the year show the increased amount of work, notwithstanding a general business depression, and are given herewith in tabular form, in the order in which they were made.

Date.	Contract, Material, or Location.	Awarded to or agree- ment with.
Jan. 27.	To furnish sewer pipe.....	George D. Goodrich.
Mar. 20.	To furnish castings.....	Hutchinson Co.
24.	To furnish cement.....	Dunlap & Wason Co.
April 6.	To furnish culvert stone, Wilson St...	Charles A. Bailey.
16.	To furnish material and move crusher	S. C. Forsaith Co.
23.	To furnish culvert stone, Cohas Ave.	D. H. Dickey.
24.	To furnish culvert stone, Sagamore St	Charles A. Bailey.
27.	To furnish circles.....	Charles A. Bailey.
27.	To furnish curbing.....	Warren Harvey.
May 10.	To build South Main-street bridge....	Kittredge & Son.
12.	To remove old and build new wall....	A. C. Wallace.
14.	To furnish sewer brick	W. F. Head & Son.
28.	To furnish steel tubing for sewers....	Amoskeag Mfg. Co.
June 9.	To furnish 50,000 feet bridge plank....	A. C. Wallace.
11.	To furnish 40,420 feet sewer plank.....	Bartlett & Gay.
Aug. 31.	To lay underground wires.....	N. E. Tel. & Tel. Co.
Sept. 21.	To furnish carload lumber	A. C. Wallace.
29.	To furnish iron fence for bridge.....	Pike & Heald Co.
Oct. 18.	To furnish sewer trench cableway....	Carson Trench Co.
20.	To build Page street.....	John H. Proctor.

In nearly all cases bids were called for and contract awarded lowest bidders.

PERMITS TO ENCUMBER.*

Given to	Location.	Date.
Head & Dowst Co.....	Elm and Manchester streets.....	Feb. 14
Mead & Mason Co.....	Elm and Washington streets.....	March 1
S. T. Worthen.....	242 Prospect street.....	10
John Fullerton.....	23 Russell street.....	19
George Holbrook.....	67-71 Hanover street.....	24
D. H. Young.....	Elm east back, between Orange and Pearl	26
Bean & Carpenter.....	Elm and Dean streets.....	April 2
H. I. Fancher.....	Pearl, between Orange and Pine.....	2
L. B. Bodwell & Co....	Union and Manchester back.....	4
E. J. Hardy.....	Ash and Bridge.....	7
Head & Dowst Co.....	Between Elm and Elm west back.....	10
John J. Bennett.....	Ash and Bridge.....	11
Head & Dowst Co.....	Amherst, opposite hospital.....	13
L. M. Aldrich.....	South Elm and Shasta.....	13
J. D. Donovan.....	Pine and Hanover, to Central back.....	18
John McCormick.....	Pine and Hanover, Summer, south.....	18
S. T. Worthen.....	Belmont and Concord.....	18
S. T. Worthen.....	Prospect and Union.....	19
George S. Clough.....	Appleton and Union.....	25
C. A. & M. L. Hoitt.....	Chester street.....	26
J. D. Donovan.....	Central back street.....	27
A. L. Bixby.....	Belmont and Valley.....	27
D. A. Shannahan.....	40 Lake avenue.....	May 3
James A. Brigham.....	Hanover back.....	5
J. Eaton.....	665 Pine street.....	10
Frank N. Daniels.....	Schiller, between Second and Turner.....	11
A. C. Flanders.....	Lake avenue and Lake avenue back.....	15
Patrick Harrington...	Lake avenue, near Elm.....	16
Clark B. Hall.....	Chester street.....	21
Joseph A. Jackson....	North Main street.....	June 4
Charles T. Whedon....	Spruce and Wilson.....	8
S. T. Worthen.....	Pearl, near Russell.....	14
A. G. Stevens.....	Beech, near Merrimack.....	July 11
W. H. Carpenter.....	Bald Hill.....	17
D. B. Sanborn.....	Laurel street.....	Aug. 1
Theodore Miller.....	Walker street.....	2
M. J. Sullivan.....	Laurel street.....	17
Mead & Mason Co.....	Towne's block, Amherst street.....	30
J. F. Seaward.....	Chestnut and Lowell.....	31
F. M. Hoyt.....	Elm east back street.....	Sept. 7
Dana & Provost.....	189 Lake avenue.....	8
James Randlett.....	54 Maple and 211 Bridge.....	12
Andrew G. Hood.....	Oak and Pearl.....	21
E. P. Desrocher.....	125 Orange street.....	27
A. D. Richards.....	Ash and Lowell.....	Oct. 5
Peter Rogers.....	Merrimack south back.....	11
E. V. Turcotte.....	Hanover south back.....	11
William Carr.....	Concord and Hall.....	16
F. N. Daniels & Co....	Auburn and Pine.....	Nov. 15
J. H. Mendell.....	Ash, near Lowell.....	15

* A bond of \$500 being filed with the city clerk in each case, when permit is granted.

OFFICE.

The work of the office has been an important one. The time of all working under the charge of the commissioners is now kept here, and this change from the old method of timekeepers has many advantages. The pay of two men is saved, the men are under the immediate charge of the commissioners, all weekly pay-rolls and monthly division of labor sheets are made up in the office, and all orders for supplies used at the city stables, for tools, etc., necessary to the work on streets, sewers, and city ledge, are procured from the office. This method has proved most satisfactory, and is certainly more economic in a business point of view.

Over 1,040 orders have been given the last year for supplies, an average of twenty per week ; 168 pay-rolls and 24 division of labor sheets made out ; a record of over 300 daily business meetings kept ; 323 letters, notices, etc., typewritten and sent out. Monthly returns of all sewers, streets, cesspools completed, edge stone set and re-set ; brick, stone, castings, pipe, etc., delivered, received, and tabulated ; 50 permits to encumber while building, with bonds made out ; a record of the receipts and expenditures kept, and balance sheet giving amount on hand of each appropriation submitted each month ; all bills approved by the commissioners each month, typewritten and filed ; all orders, resolutions, ordinances, etc., relating to the street and park commission copied on typewriter and filed ; 90 orders to concrete crossings, roadways, etc., made out ; requests and complaints kept and submitted daily.

The following is a list of receipts and expenditures for the last year :

RECEIPTS.

Pipe	.	.	.	.	.	.	.	\$45.10
Stone	.	.	.	.	.	.	.	44.00
Chopping blocks	.	.	.	.	.	.	.	7.79
Old plank	.	.	.	.	.	.	.	15.07
Castings	.	.	.	.	.	.	.	6.60
Loam	.	.	.	.	.	.	.	6.00

Health department	\$33.37
Underground wires	18.33
Derryfield Park	4.50
Sundries	12.55
Cash on hand	1.00
	<hr/>
	\$194.31
Less cash paid for express	2.62
	<hr/>
Deposited with city treasurer	\$191.69

EXPENDITURES.

Commissioners' salaries	\$1,800.00
Clerical services	1,363.50
Office supplies	18.25
Blank books	43.15
Stationery	12.05
Carriage hire	502.50
Incidentals	44.20
	<hr/>
Total	\$3,783.65

TOTAL COST OF ALL WORK DONE DURING THE YEAR 1894.

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Totals.
Street and park com.	\$229.56	\$173.99	\$600.20	\$171.40	\$185.00	\$602.00	\$148.53	\$159.00	\$598.50	\$108.00	\$148.50	\$598.50	\$3,783.65
Repairs of highways	821.62	74.27	695.17	1,714.36	3,237.56	3,199.89	2,370.01	2,426.51	3,982.73	2,618.72	1,045.12	249.35	22,435.31
New highways.....	788.78	419.40	109.76	1,503.95	4,778.46	3,294.88	1,203.21	2,055.46	879.76	2,937.16	798.28	101.25	19,892.35
Watering streets....	47.63	6.46	188.95	188.43	502.07	597.15	814.20	735.92	473.91	379.25	17.95	32.16	3,984.08
Paving streets.....	407.54	.....	19.13	208.63	674.69	695.25	331.29	1,419.68	703.67	727.14	59.00	.....	5,966.02
Macadamizing.....	1.90	.....	95.44	125.07	798.32	2,361.03	4,431.20	3,802.60	1,647.21	1,377.43	50.79	475.00	15,105.99
Grading for concrete	1,081.64	.....	86.01	216.50	329.64	295.99	918.47	666.99	302.50	5.87	43.50	13.12	3,960.23
Scavenger teams....	1,311.98	1,086.45	1,857.41	1,277.60	1,256.71	1,092.71	1,069.08	1,161.14	1,011.92	1,329.78	1,306.25	1,119.63	14,880.56
Street sweeping.....	.....	.....	.....	154.55	196.61	101.88	173.59	211.48	125.25	159.39	.....	.....	1,122.75
Bridges.....	67.86	27.99	71.70	43.50	145.09	495.01	1,038.93	189.03	388.23	223.06	107.62	102.30	2,900.32
City teams.....	996.06	705.40	268.19	783.25	478.82	556.66	641.11	461.67	961.27	221.18	479.67	447.12	6,998.40
Repair of sewers....	91.24	75.00	226.93	94.89	602.80	913.30	251.19	720.76	592.30	338.13	639.16	92.81	5,201.61
New sewers.....	5.60	18.10	3.90	1,917.95	5,791.98	5,442.90	6,046.39	8,231.78	6,713.69	10,404.14	4,654.06	3,680.42	52,970.91
Commons.....	257.35	229.52	206.13	359.04	236.37	416.96	140.29	1,024.61	196.12	219.75	94.90	122.42	3,503.46
Stark & Derryfield pks	36.60	.....	17.50	43.52	1,370.91	1,271.03	1,290.94	741.64	430.59	.....	.....	.....	5,158.73
S. Main-street bridge	.....	16.00	.....	.....	.....	4,500.00	5,500.00	6,000.00	5,500.00	6,950.00	.....	.....	28,450.00
Snow and ice.....	1,253.32	3,166.94	914.76	.....	.....	.....	.....	.....	.....	.....	.....	.....	5,335.02
Total cost.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	\$201,709.39

All the outside divisions included in "Repairs of highways."

CITY STABLES.

Many persons in going to the railroad station pass a brick building just west of the city scales, and perhaps wonder what it is used for. They may catch a glimpse through the gate of sewer pipe in orderly stacks, or piles of cobble stone dumped on the ground. Well, this is the city stables and yard, where the city teams and horses, sprinklers, etc., are kept, and where the shoeing and general blacksmithing is done. It is always a busy place, for here the supply teams come to deliver orders, and to take away sharpened drills and picks, to carry away pipe, brick, and cement to the various sewers and cesspools, to deliver and carry away traps and grates and castings of many kinds. Here, also, the brick, pipe, Salem stone, castings, and supplies of all kinds are stored, filling over nineteen sheds.

A visit to the city yard is interesting, as everything is kept in good order. As one steps into the brick stable he is struck with the neatness displayed, from the carefully swept floor, which is washed out once a week in summer, to the clean windows and the handsome well-groomed horses standing in their ample stalls, contentedly considering their morning's meal. There are fifteen draft horses, two driving horses; average weight of draft horses, 1,510 pounds; average age, 12 years; one horse, 24 years old. There are eighteen stalls, but no box stalls. In case of a sick horse, a box stall is needed. There is also need of cribs for feeding, and a larger water tank. Hay loft will hold about ten tons loose hay, fifteen tons baled.

Since the removal of the crusher and boiler to the city ledge, the engine house has been used as a repair shop, and this place is a busy one, as the wear and tear on the carts and tools call for frequent repairs. Tool boxes, snow plows, etc., are made here, and all the painting necessary on dump-carts, sleds, sprinklers, snow plows, etc., is done here.

The blacksmith shop has proved to be a valuable acquisition to the street department. All repairs calling for iron work on wagons, dumpcarts, sleds, and snow plows, all sharpening necessary for tools used on the street and ledge, all sharpening and

shoeing of horses, all tools to be made, bolts, braces, iron bars, etc., are furnished from this shop, resulting in a great saving of money for the city.

The city owns 8 one-horse scavenger sleds, 5 two-horse scavenger sleds, over 20 snowplows, 2 two-horse snowplows, calling for continual repair by the blacksmith. During the last year a Sampson upsetter has been purchased for the blacksmith shop. This machine is an ingenious contrivance for contracting an iron tire to fit a loose wheel. Also a drilling machine has been procured and screw plates. There is need of a power lathe for making drills, and turning iron and wood, and for making bolts, etc., for the road roller and crusher.

CITY YARD, WEST MANCHESTER.

Within the last year much has been done to improve the facilities for storage and accommodation of teams and horses at the yard in the rear of the Fire King engine house. An office and stable are now provided, two horses are kept in the stable and used on scavenger work. Here also are kept all tools, carts, and sleds for scavenger service, one road machine, horse scrapers, pumps, one sprinkler, etc. Sheds are provided for storage of brick, cement, sand, etc. One sprinkler is kept at the Clinton-street engine house.

The hay, shorts, cracked corn, and oats necessary for feed for both stables has been bought by the carload or in bulk at a very reasonable rate. Liniments, axle grease, and repairs of harnesses, blankets, new harnesses, disinfectants, and other sundries have all been carefully purchased, and at an advantage to the city, all such supplies being ordered by application to the office of the commission, and subject to their approval.

NEW SOUTH MAIN-STREET BRIDGE.

Early in the year 1893 a proposal was made to erect a bridge over the Piscataquog river at South Main street, West Manchester, to replace the wooden structure then standing, and the mat-

ter took definite shape in the form of "an order to procure plans and specifications and build South Main-street bridge," which was presented to the city councils for action. Upon the passage of this order active measures were taken by the commissioners to gain information regarding the best methods of obtaining plans and specifications. Plans of location, estimates of material, sewer, gas, and water connections were considered with the city engineer. Twenty different bridge building firms were sent type-written letters, stating that blue prints giving profile of location of the proposed bridge would be forwarded and information regarding method of bidding furnished to those desiring to bid, all designs to be submitted at the expense of the parties making proposals on or by the first of April. According to agreement, on Monday, April 2, at 2 o'clock P. M., the following bridge companies submitted designs and estimates :

Wrought Iron Bridge Co., Canton, Ohio.
R. F. Hawkins Co., Springfield, Mass.
Trumbull & Ryan, Boston, Mass.
Groton Bridge Co., Groton, New York.
L. F. Kittredge & Son, Lowell, Mass.
Dean & Westbrook, New York.
Martin Fitzgerald, Manchester, N. H.
Winfred H. Bennett, city engineer.
Toledo Bridge Co., Toledo, Ohio.
Columbus Bridge Co., Columbus, Ohio.
Massillon Bridge Co., Kane, Penn.
Berlin Bridge Co., East Berlin, Conn.
Boston Bridge Co., Boston, Mass.
Vermont Construction Co., St. Albans, Vermont.

No action was taken at this conference, as it was necessary to thoroughly consider each design and estimate before agreeing upon choice of design. After careful consideration of each design and estimate, and understanding the desire for a stone bridge, the commissioners decided to send notice to all bridge companies that proposals for a stone bridge would be considered

by the board. On April 16, designs and bids for a stone bridge to be erected at South Main street were received from the following parties:

L. F. Kittredge & Son, Lowell, Mass.

Trumbull & Ryan, Boston, Mass.

*Dean & Westbrook, New York.

Martin Fitzgerald, Manchester.

Winfred H. Bennett, city engineer.

April 17, the commissioners met and voted to award contract, if approved by city councils, to L. F. Kittredge & Son, Lowell, Mass., to build a double arched cut-stone bridge over the Piscataquog river at South Main street, according to plans and specifications submitted by them, for the sum of \$27,975.

In accordance with this vote a report was drawn up of the proceedings of the board and a copy forwarded to His Honor the Mayor to be presented to the city councils at a special meeting to be held Thursday evening, April 19, at which time the city councils passed the following order:

ORDERED, That the city clerk be and is hereby authorized to make a transfer of seven thousand and nine hundred and seventy-five dollars (\$7,975) from the reserve fund to the appropriation for South Main street bridge.

Upon the passage of this order Messrs. Kittredge were notified to proceed to the erection of the bridge. A contract was made by the commissioners and signed by Kittredge & Son, with a bond attached of ten thousand dollars (\$10,000) for the principal and two thousand five hundred (\$2,500) for each of the sureties. All preliminaries being settled, work was commenced on or about May 25. Two large steam derricks were set up, and the stone in old abutments removed, the granite for the new bridge being furnished by Charles A. Bailey, of Suncook, N. H.

The work on the bridge progressed rapidly through June, July, August, and September. October 17, the bridge was declared finished by the contractors, and was formally accepted by the commissioners in behalf of the city, and opened for public travel.

ITEMS.

Under this head are collected short notes on various subjects or departments of work connected with the street and park commission. We think this departure from the regular tabulated annual report will be appreciated. A scrap-book has been kept during the last year and all items of interest or of valuable suggestion have been filed for reference. We submit the following:

The first sewer opened up was the Elm west back, running from West Merrimack to Spring street, April 11. It was relaid and deepened. The Prospect sewer, North River road, Hall street, North Main street, and Hancock street ran through ledges. The cost of the steel riveted sewer pipe, 48 inches by 63 inches, furnished by the Amoskeag Manufacturing Co. for sewer at South Main street, was \$408.81; this included painting and paint stock. The average weight of grates, season of 1894, for cesspools was 103 lbs., for traps 76 lbs., manhole castings 350 lbs. each. Ten lengths of 2½-inch standard hose were purchased of the Samuel Eastman Co., Concord, N. H., to supply a long-felt need in flushing out sewers, cesspools, etc. Seventy-four carloads of brick have been purchased of William F. Head & Son, Hooksett, N. H., containing 516,469 brick, cost of freight \$414.40, cost of brick \$2,901.50, total cost of freight and brick \$3,315.90; 42 cars were unloaded in West Manchester and 32 cars were unloaded at city yard.

Thirty-nine cars loaded with 18,861 feet of Akron pipe and Y branches have been used, at a net cost of \$3,313.58.

Bought Carson trench machine, cableway, engine, frame, and eight tubs, 4¾ cubic yards each and 4½ cubic yards each, saving to the city 50 per cent in item of labor; cost of machine complete, \$3,450.

Damages in case of Patrick Kendrigan, \$186.60, for injuries received while working on sewer. Damages in case of A. Noullette, injury to arm while working on sewer, \$46; recovered. Damages, F. E. Webster, injury to wagon caused by road roller frightening horse, \$19.50.

The curbstone furnished this year was seven feet long, eight inches top, and circles three feet radius, for streets and cesspools. Twenty-five loads of good paving stone were taken from South Main street old bridge abutments and used on the streets, 50 loads of gravel put on the streets in West Manchester, and 160 loads of gravel in Amoskeag during the month of June, and 1,200 loads of gravel put on as topdressing on the principal streets in Division 2, in the same month. Average of 30 loads of sand distributed each day in business portion of the city in January.

Hanover street was widened from Elm to Elm east back, 195 feet, by setting in the edge stone one foot on the south side. Important improvements were made at the corner of Elm and Hanover streets by repaving the street with new granite block paving, with pitched joints, concreting the north crossing on Elm street, building three new cesspools, setting back the letter box, etc.; curved edge stones were put in at the corners.

The first of the summer the S. C. Forsaith Machine Co. was given contract to erect crusher plant; amount of contract, \$1,642, \$475 for changes to screen, etc.; 3,882 loads of stone were crushed at the city ledge during the season, equal to 5,176 cubic yards. Of this number of loads 2,190 were used in general repairing of roads and streets in Divisions 2 and 10; 1,692 loads were used on new macadamizing.

Sixty-five carloads of fine and medium Salem stone, equal to 1,288 tons, at a cost of \$1,803.20, were purchased of the Massachusetts Broken Stone Co. The steam road roller weighs 18 tons and costs \$8 per day to run with four men and fuel.

Cost of whitewashing tree boxes this year was, supplies and incidentals, \$51.17; cost of labor, \$96.87; total, \$148.04. This covered full length of Elm street and part of Franklin.

Capacity of street sprinklers is about 600 gallons each; cost, \$450 each; repairs on sprinklers during the year, \$113.90; 6 sprinklers used in Division 2; 76 miles per day sprinkled. Each team covers 13 miles each day; territory covered, about $1\frac{1}{4}$ miles north, east, south, and west. Two nights per week sprinkler is used during warm season.

During Merchants' week the city engineer showed attractive designs in his window reading as follows: "Manchester contains $4\frac{1}{2}$ miles of macadam, 134 miles of walks, 175 miles of streets and roads, 8 miles of avenues, 50 miles of sewers."

A 50-foot street takes an 8-foot sidewalk.

A 45-foot street takes a 7-foot sidewalk.

A 40-foot street takes a 6-foot sidewalk.

Manchester contains over 21,700 acres and over 90 miles of shade trees; 42 elm trees were set out on Park common this season by Superintendent Fullerton.

Return cards have been printed by order of the commission for all employees unloading pipe, stone, brick, etc., to return to office amount received of said materials; also cards giving different routes of scavenger teams, and time of visiting the several localities.

A substantial foot bridge was built by A. C. Wallace across the Piscataquog river at Log street to accommodate pedestrians, at a cost of \$31.87 for labor, while the new South Main street bridge was in progress.

Average number of men employed in Division 2 during summer months, 250; Division 10, 85; commons, 35.

Pay-day for Division 2, Wednesday each week.

Pay-day for Division 10, Tuesday each week.

Pay-day for commons, Tuesday each week.

The assistant clerk has gone out with Mr. Maxfield, second hand under Street Superintendent Cheney, and pay clerk, or city treasurer, each payment, and every name was checked when pay envelope was taken. Thus a complete record is kept of amounts paid each man at the office of the commission. The pay-rolls for all employed under the street and park commission department are made out at the office, and handed the city treasurer, who copies the total of each pay-roll in his cash book and puts the money in the pay envelopes, numbering each to correspond with a number opposite each name on the pay-roll. During the winter months payments are made at the treasurer's office; 168 pay-rolls have been made out and 24 division of labor sheets.

Inventory of City Property.

Commissioners' office, including typewriter, desks, blank books, etc.	\$372.40
Division No. 2, including 16 horses, dumpcarts, sprinklers, snowplows, road machine, stone crusher, Carson trench machine, etc.	17,263.17
City buildings, Franklin street	12,300.00
Lot of land, Franklin street	89,312.00
Valuation of pipe on hand, city yard	924.49
Division No. 5	20.70
Division No. 6	13.10
Division No. 7	68.30
Division No. 8	28.90
Division No. 9	18.30
Division No. 10, including horses, dumpcarts, sprinklers, road machine, etc.	2,112.45
Stable and lot, Division No. 10	1,200.00
Valuation of pipe on hand, Division No. 10	124.71
Division No. 11	9.60
Commons, including horse lawn mowers, swings, seats, etc.	882.10
Total	<u>\$124,650.22</u>

Orders Received from City Government, with Date of
Passage. 1894.

ORDERS TO BUILD CERTAIN STREETS.

Chestnut to Union street through Livermore land, 810 feet.

Adams street from above sewer north to Clark, 240 feet.

Rimmon east back, 750 feet.

Pine street from Auburn southerly, 1,066 feet.

Green street, 300 feet ; Grove street, 300 feet.

Belmont, present sewer south to culvert, 230 feet.

Wilson, Spruce to Valley, 1,800 feet.

Pine east back from Amherst northerly, 150 feet.

Mast to Amherst road, thence south to Milford, 1,840 feet.

Passed April 3.

Union from line of proposed sewer across Livermore land northerly to Clark.

Union east back, Webster southerly, 100 feet.

Hale street and northerly and easterly to Merrimack river, 1,200 feet.

Malvern street, present sewer southerly, 100 feet.

Elm west back, from north of Dean, 185 feet.

Passed May 1.

Bridge, Hall to Belmont, 350 feet.

Pearl, Russell easterly, 125 feet.

Wilson, Valley to Somerville, 1,800 feet.

Passed August 7.

Hevey east back, Kelley southerly to Wayne, 1,200 feet.

Manchester, Milton to Beacon, 300 feet.

Clinton, Main to West street, 520 feet.

Dover, Clinton northerly, 160 feet.

West, Clinton northerly, 250 feet.

Passed September 4.

Prospect street, from Russell westerly, 125 feet.

Passed October 2.

Grove street, present sewer easterly, 150 feet.

Spruce street, present sewer easterly, 800 feet.

Canton, Spruce easterly, 500 feet.

Auburn, Canton easterly, 600 feet.

Pearl, Hall westerly, 130 feet.

Hall, Mead southerly, 200 feet.

Liberty east back, Salmon southerly, 150 feet.

Hall, Schiller southerly, 450 feet.

Harvell, Hale westerly, 700 feet.

Passed November 9.

An order to erect watering-trough, corner Valley and Union streets.

Passed September 4.

ORDERS TO BUILD CERTAIN STREETS.

Harrison, Russell easterly to Belmont.

Kennedy, Brown avenue westerly to Josselyn.

Passed June 5.

Wentworth, from West Hancock southerly about 1,500 feet.

Salmon, Walnut to Beech.

Bartlett, Putnam southerly about 400 feet.

Beech, Salmon to Gore.

Passed July 3.

Mystic avenue, Oakland avenue to Glenwood avenue.

Bartlett, Putnam to Sullivan.

Passed August 7.

Somerville, Pine to Union.

Sagamore, Walnut to Oak.

Passed November 9.

The above orders in detail are on file at the commissioners' office.

Scavenger Service.

STATEMENT FOR 1893-1894.

CARE PERISHABLE WASTES.

The contract to remove all perishable waste throughout the city was made by the board of street and park commissioners with the joint standing committee on city farm, on June 9, 1893, for one year. This brings part of the year's service into 1894. The amount to be allowed the committee on city farm

for the year's service was \$2,500. On account of the necessity of building suitable wagons the actual service was not commenced until the 23d of June, and W. H. Carpenter and F. X. Chenette were hired to remove the perishable waste during this time.

The following amounts were allowed for this service during the year.

1893.

Draft for July, W. H. Carpenter . . .	\$24.00	
F. X. Chenette . . .	108.00	
city farm . . .	42.63	
August, city farm . . .	208.33	
September, city farm . . .	208.33	
October, city farm . . .	208.33	
November, city farm . . .	416.66	
December, city farm . . .	208.34	
	<hr/>	\$1,424.62

1894.

Draft for January, city farm . . .	\$208.33	
February, city farm . . .	208.33	
March, city farm . . .	208.33	
April, city farm . . .	208.33	
May, city farm . . .	208.33	
	<hr/>	\$1,041.65
		<hr/>
		\$2,466.27
Balance due in June		33.73
		<hr/>
		\$2,500.00

CARE IMPERISHABLE WASTES.

“The ashes, earth, brick, lime, rubbish, and other innoxious and imperishable wastes shall be collected, and when so collected may be used for filling new streets or low ground.” Chapter 9, section 3, Laws and Ordinances.

The regular scavenger teams attend to the removal of the foregoing imperishable wastes, while the city farm teams remove the perishable wastes only.

Section 4 of this same chapter provides that, "Every person owning, occupying, or having the care of any building or premises, or business located in the compact part of the city in which any perishable or burnable waste, whether of vegetable or animal origin, is produced shall provide and keep a suitable vessel in which all such wastes shall be deposited, and *no water, earth, ashes, stones, or brick* shall be mingled therewith."

It still further provides that, "All ashes and other imperishable wastes, which may properly be removed by the scavenger department, shall be placed in a separate receptacle, and *no perishable or burnable* wastes shall be deposited therewith."

And lastly, "Each of said receptacles with its contents shall be set out upon the back street or upon the edge of the sidewalk in the morning of the day on which the scavenger teams are to pass through the street for the removal of that kind of wastes."

If the above is strictly complied with there can be very little cause of complaint.

The commissioners, early in the season, issued cards for distribution giving the days on which the scavenger teams passed, and very few complaints have been made since that time.

Let it be distinctly understood that the city farm teams remove the perishable and burnable wastes only; the city teams the ashes, earth, stones, and brick.

The commissioners voted, however, that "No person shall encumber the streets and lanes by throwing out any dirt or sand from cellars and excavations, or by placing other obstructions of any kind upon said streets and lanes, without a special permit from the said board."

It goes without saying that all should assist in the preservation of the good health and cleanliness of our city by heartily complying with the foregoing ordinance.

The following give the section of the city and time of collection of both perishable and imperishable wastes.

TEAM NO. 1.

Elm west side front and back streets.—Monday, Wednesday, and Friday: From Langdon street to city hall. Tuesday, Thursday, and Saturday: From city hall to Auburn street, passenger and freight depots, and Franklin street.

TEAM NO. 2.

Monday: From Bridge to Orange and east side of Union. Elm back and front from Concord to Orange.

Tuesday and Friday: From Bridge to Orange, and from Elm to Union.

Wednesday and Saturday: From Bridge to Concord, and from Elm to Union.

Thursday: From Bridge to Concord, and east of Maple.

TEAM NO. 3.

Monday and Friday: From corner of Hanover and Wilson streets south, to south side of Lake avenue, up Lake avenue to top of Wilson hill, north to Hanover, down south side of Hanover to Lincoln.

Tuesday: Manchester south back, Laurel, Central, Merrimack, Lake avenue, Spruce, Cedar, and Auburn back streets, between Wilson and Beech streets.

Wednesday: South of Spruce and east of Wilson, known as East Manchester.

Thursday: Manchester House and Pembroke block and the four back streets running north and south between Concord and Bridge, Union and Ash.

Saturday: All south of Auburn street, known as south Manchester.

TEAM NO. 4.

Monday and Thursday: Elm street both sides from Blodget to Clark; Chestnut and Pine the same; Webster and Appleton streets from Elm to Hooksett road; Liberty, Clark, Ray, Adams,

and Monroe the entire length; River road from Amoskeag bridge to north side of Clark; Brook and Blodget from Elm to Union; also Hazel street.

Tuesday and Friday: Elm back street Harrison to Orange; Orange, Myrtle, and Blodget back streets from Elm to Walnut, the Dow and Abbott blocks included.

Wednesday and Saturday: Pennacook, Sagamore, and Salmon streets from Pine to Union; Union, Walnut, Beech, and Ash from Harrison to North; Orange, Myrtle, Prospect, and Harrison from Walnut to Hall.

TEAM NO. 5.

Tuesday, Thursday, Saturday: Elm street, east side, from Concord to Manchester.

Monday and Thursday: Beacon street to Union from north side of Hanover to south side of Concord.

Tuesday and Friday: From Concord to Manchester, from Elm back street to Pine street.

Wednesday and Saturday: From Union to Elm back street, and from Concord to Manchester.

TEAM NO. 6.

Monday and Thursday: From Lake avenue to Auburn, from Elm to Beech street.

Tuesday and Friday: From south side of Manchester to south side of Laurel from Elm to Beech.

Wednesday and Saturday: From north side of Lake avenue to south side of Laurel, from Elm to Beech.

Scavenger.

COLLECTION AND DISPOSAL OF GARBAGE.

The subject of the disposal of garbage is one that is being discussed by the large cities, and various methods are being tried with greater or less success. The rapid growth of our city calls for a consideration of this subject. To sum up the different

methods, we may say that one of three ways of disposal seems to be adopted, viz.: The common method of conveying to the dump and contract to dispose of unburnable wastes ; cremation of everything ; or reduction by different methods to two products, i. e., grease and dry fertilizer. The latter method seems to have some advantages, and is said to pay a fair margin over and above expenses. A brief description of this method will be of interest to our citizens. This system is known as the Merz process.

“The garbage is delivered at the plant in wagon loads as fast as collected, and immediately goes to a draining machine, where, with the aid of steam, a great deal of moisture is drained off. At this point a separation of extraneous substances, such as tin cans, bottles, shoes, baskets, and all non-vegetable and non-animal matter, from the garbage or kitchen refuse must be made. This separation is necessary, and should be made at the houses before the garbage is collected. The public is gradually coming to understand this new departure in city life, and as time goes on the amount of separation at the works will be smaller. The extraneous matter is at the disposal of any one who cares to use it for filling or other purposes. After the separation the garbage is fed into a long boiler-shaped tank which has an inner and outer shell, between which are coils of pipe filled with steam. The center of this double tank contains a revolving, rakelike apparatus, which has the appearance of a long shaft with iron prods or spokes inserted into it. The garbage is fed into the hot tank, and is constantly kept moving about by the revolving rake, and very soon all the moisture is evaporated, the garbage torn to pieces and reduced to a dark-colored substance something similar to dry corn silks, or dirty sawdust. There is little or no odor, for in addition to evaporation by drainage and application of heat, the matter is treated while in the drying tanks to a constant supply of fresh air driven in by fans.

“Mixed in with garbage in the summer time there will be found, when it leaves the drying tank, a quantity of corn cobs. These are removed and sent to the boiler room as fuel. The dried garbage is then placed in another tank, treated to a bath

of naphtha, hermetically sealed up in this bath-tub in which steam is used to heat the naphtha. The heat thus applied dissolves the grease, which, being attractable to naphtha, is separated from the garbage, or, as it is technically termed, tankage. Thus is the garbage divided into two separate products, viz.: grease and tankage.

“By simple mechanical means the grease and naphtha are carried off to be afterward separated, and the tankage is further manipulated. It is milled and screened, and in a very short time takes the form of a marketable fertilizer. In this shape it is unobjectionable to the senses, and is an easily handled commodity. The grease is sent to the refineries, and there transformed into glycerine, stearic acid, red oil, and other lye-products. And so what was originally an unsightly, unmanageable white elephant, goes through a process of cleansing and purification which effects a complete regeneration. The application of this process to any city is possible, but its availability or desirability as compared to other systems, can be determined only when considered in connection with local conditions and requirements. That it is a logical and economical disposition of garbage seems to be evident.” (Copied from “The Municipality and County.”)

Streets.

CRUSHER PLANT.

Early in the month of April the commissioners considered the advisability of removing the stone crushing plant from the city yard to the ledge on Wilson Hill, near Lowell street, and called for bids to erect a suitable plant at said location. S. C. Forsaith Co. being the lowest bidders were awarded the contract to erect the plant; the plant consisting of an elevator building 50 feet high, with elevator and buckets; screen for three sizes stone, 3-inch, $1\frac{1}{2}$ -inch, and $\frac{1}{2}$ -inch; suitable bins to hold 25 tons stone, with driveway underneath; also an engine house with connections for water supply, etc.

The excavating was done by the city and the foundation erected ready for the superstructure, the city engineer looking after all surveys necessary, under direction of the commission. On or about the last of June the plant was put in running order, and the stone was used as fast as crushed for filling low places in the streets and for macadamizing. Work was kept up to the last of October. About 50 loads, or 100 tons, of stone were crushed per day, the average haul being a mile.

STREETS WHERE LEDGESTONE HAS BEEN USED.

Hanover, Chestnut to Union ; Pine, Hanover to Merrimack ; Pine, Merrimack to Lake avenue ; Granite, Franklin to Elm ; Franklin, Depot to Merrimack ; Franklin, Merrimack to Market ; Chestnut, Concord to Lowell ; Concord, Vine to Pine ; Stark, Elm to Elm west back ; Mechanic, Elm to Elm west back ; Water, Elm to Elm west back ; Chestnut, Merrimack to Central ; Hanover, Beech to Maple ; Amherst, Chestnut to Vine ; Merrimack, Union to Beech ; Chestnut, Brook to Blodget.

MACADAMIZING.

This method of preparing street surface has always been a practical and favorite one, our streets treated in this way showing great durability, and when well topdressed with fine crushed stone almost a perfect roadway results.

Since the removal of the crusher to the ledge this season, and the erection of the elevator and screens with bins for holding the various sizes of stone, many of our streets have been improved by a topdressing of crushed stone, and in some cases by a thorough treatment, by removal of old roadbed and then building a new bed from foundation up of layers of different sizes of ledge-stone, with binder course of fine Salem stone. We give herewith a detailed account of this department of work :

LOCATION.	Length in feet.	Square yards.	Crushed stone.	Salem stone.	Labor.
Hanover, Chestnut to Union	900	3,400	.....	60	\$152.49
Pine, Hanover to Merrimack.....	600	2,400	50	30	247.40
Pine, Merrimack to Lake avenue..	850	3,212	200	60	349.50
Granite, Franklin to Elm.....	300	2,000	150	52	300.25
Franklin, Depot to Merrimack. ...	300	1,200	15	.....	40.00
Franklin, Merrimack to Market....	300	1,200	15	.....	50.00
Chestnut, Concord to Lowell.....	325	1,084	75	30	208.00
Concord, Vine to Pine	700	2,800	90	.....	212.50
Stark, Elm to Elm west back. . . .	110	612	50	.....	102.00
Mechanic, Elm to Elm west back..	110	612	55	.....	106.00
Water, Elm to Elm west back.....	110	612	40	.....	86.25
Chestnut, Merrimack to Central....	450	1,800	110	20	253.00
Hanover, Beech to Maple.....	650	2,600	210	55	596.70
Amherst, Chestnut to Vine	300	1,267	240	35	703.40
Merrimack, Union to Beech.....	550	2,139	220	54	670.96
Chestnut,* Brook to Blodget.....	300	1,356	200	41	626.50
	6,855	28,294	1,720	437	\$4,704.95

* Eleven carloads granite chips used.

Average width, 39 feet.

SUMMARY.

Cost of Salem stone	\$1,432.85
Cost of granite chips	85.68
Cost of lumber	41.98
Incidentals	1,158.07
Crushing plant	2,117.00
Labor on streets	4,704.95
Labor at ledge	2,379.95
Concrete	1,441.53
Total	\$13,362.01

EDGE STONES SET.

There has been a great call for edge stones the last season. Our citizens are learning that a well-laid concrete walk, with stone curbing, makes a neat permanent finish in front of a residence, a comfort to all pedestrians and a source of pride to the real estate owner. The city encourages all efforts in this direction and, therefore, all property owners who will purchase edge stones can have them set in front of their property free of charge. Concrete crossings and corner stones or circles are laid and furnished by the city where there seems to be a demand for the same by the traveling public. All of these improvements are controlled by the appropriations, however. The following list of locations where edge stones have been set will give an idea of the extent of this department of work.

Streets.	Feet.
Union and Sagamore	48
Webster and Bay	7
North and Bay	28
Pine and High	100
Elm and Appleton	29
Merrimack and Belmont	47
Concord and Belmont	16
Elm and Sagamore	28
Pearl and Linden	36
Brook and Ash	233
Pearl and Linden	116
Chestnut near Ray brook	100
Liberty and Webster	33
Massabesic and Summer	129
Webster, Children's Home	66
Salmon and Union	38
Warren and Arlington	20
Pearl and Linden	20
Spruce and Hall	56

Streets.	Feet.
Pine and Cedar	75
Union and Appleton	20
Kidder	200
Pine and Central	90
Elm back	10
Laurel	22
Webster and Adams	24
Elm and West Appleton	90
Elm and Pearl	50
Elm and East Appleton	27
Pine between Central and Laurel	8
Pine between Hanover and Amherst	8
Chestnut, between Bridge and Pearl	16
Amherst and Ashland	16
Prescott and Wilson	450
Merrimack, between Union and Beech	134
Pearl and Russell	48
Concord and Belmont	20
Spruce and Massabesic	80
Lake avenue and Maple	50
Elm and Webster	270
Elm and Myrtle	350
Union and Salmon	20
Cedar and Chestnut	20
Chestnut, between Brook and Blodget	305
Amherst and Porter	32
Massabesic and Hall	27
Arlington and Linden	42
Bridge and Ashland	21
Lincoln and Manchester	21
Arlington and Maple	50
Beech and Lake avenue	100
Central and Hall	36
Pennacook and Pine	20
Prospect and Linden	40

Streets.	Feet.
Spruce and Chestnut	16
Chestnut, south of Spruce	100
Lake avenue, near Elm	390
Prospect and Linden	16
Myrtle and Linden	32
Pearl and Arlington	16
Central and Wilson	32
Cedar and Chestnut	32
Lake avenue and Chestnut	16
Pine and North	16
Liberty and North	66
Gore and Walnut	16
Pearl and Nashua	16
Nashua and Arlington	16
Brook and Chestnut	170
Cedar and Maple	225
Union, north of Valley	16
Amherst, between Pine and Union	400
Amherst and Ashland	16
Total	5,549

EDGE STONES RESET.

Streets.	Feet.
Elm, front Thayer's store	50
Church	26
Chestnut, north of Appleton	100
Elm back, between Amherst and Hanover	40
Hanover, between Elm and Chestnut	50
Spruce and Chestnut	110
Hanover and Elm	195
Total	571

Total number of feet of edge stones set or reset, 6,120.

Total cost of foregoing work, \$758.94; an average cost of \$0.124 per foot.

NEW STONE CULVERTS.

STREETS.	Length in feet.	Width in feet.	Cost stone.	Cost labor.	Inciden- tals.	Total cost.
Wilson *	112	18	\$339.00	\$889.90	\$23.97	\$1,252.87
Sagamore †	180	12	136.27	574.09	17.75	728.11
Cohas avenue ‡	462	.....	32.37	16.74	.....	49.11

* This culvert was 6 feet deep; walls, 5 feet thick; covering stone, 10 feet long.

† This culvert was 4 feet deep; walls, 4 feet thick; covering stone, 5½ feet long.

‡ This culvert was 1 foot deep; walls, 1½ feet thick.

The commissioners heretofore contracted large stone culverts, but this year they bought the stone for Wilson and Sagamore streets and Cohas avenue, and the city help laid the culverts, except on Cohas avenue, the city engineer furnishing all necessary plans.

CULVERTS REPAIRED.

South Manchester, near Patrick Harrington's, cost of labor \$2.75; old pipe used.

Beech street, south of Young street, length 14 feet, cost of labor \$14.

Wilson street, near Bodwell's, cost of labor \$15.50; this culvert raised 1 foot; cost of lumber \$7.75, total cost \$23.25.

River road north, 100 perch of stone used, cost of labor \$94.

Chestnut street at Ray brook, cost of labor \$35.

Falls road, below Pine Grove cemetery, cost of labor \$11.50.

Pearl street, east end near Hall, two culverts repaired and raised; length 338 feet, cost of labor \$560.37.

Harrison street, east end, two culverts repaired and raised; length 55 feet, cost material \$72, labor \$49.25, total cost \$121.25.

Myrtle street, length of culvert 55 feet, cost of labor \$57.

In case of Harrison-street culvert the stone was bought of

Warren Harvey. All the other culverts were built of stone taken from the sewers and streets.

STREETS GRAVELED.

The following streets have been topdressed with stone, gravel, or cinders. In most cases the streets have been turnpiked with the road machine and then stone put on with gravel or cinders as a binder course. This gives a good crown and throws the water into the gutters. Our citizens have expressed themselves as well pleased with this work, as the principal streets have been treated this way to the great improvement of public travel.

Streets.	Feet.
Central, Wilson to Maple	1,200
Cedar, Lincoln to Pine	2,400
Beech, Cedar to Auburn	300
Union, Cedar to Auburn	300
Hanover, from top of hill to Hall road	2,400
Lake avenue, Elm to Wilson	3,800
Orange, Elm to Ash	2,200
Myrtle, Elm to Ash	2,200
Prospect, Elm to Union	1,400
Beech, Hanover to Bridge	1,550
Bridge, Ash to Hall	2,200
Malvern, Concord to Bridge	1,050
Lowell, Maple to Hall	1,800
Brook, Elm to Pine	1,400
Webster, Union to Beech	450
Concord, Pine to Ashland	2,900
Pearl, Chestnut to Union	800
Pearl, Russell to Ashland	700
Pine, Harrison to North	2,400
Union, Bridge to North	5,000
Cedar, Chestnut to Pine	350
Smith road	1,500
East High, Malvern to Ashland	500

Streets.	Feet.
Maple, Cedar to Lowell	2,800
Lincoln, Spruce to Merrimack	1,000
Amherst, Beech to Maple	600
Russell, Harrison to Orange	800
Chestnut, Blodget to Pennacook	220
Pine, Cedar to Clay	3,600
Linden, Arlington to Orange	600
Cass, Lake avenue to Central	220
Concord, east of Hall	150
Harrison, Walnut to Beech	250
Wilson, Hanover to Manchester	250
Merrimack, Pine to Union	450
Laurel, Chestnut to Union	800
Laurel, Hall to Beacon	850
Manchester, Hall to Milton	650
Jane, Nashua to Lowell	800
Arlington, Cross to Ashland	900
Appleton, Elm east	1,500
River road, North street north	700
East Spruce, Maple to Lincoln	650
Union, Auburn to Valley	1,400
Total	57,990

MATERIAL USED.

Loads of gravel	5,520
Loads of stone	210
Loads of cinders	100
Total number of loads	5,830

STREETS TURNPIKED WITH ROAD MACHINE.

Streets.	Feet.
Elm, south end	1,100
Elm, north end	1,308
Nutt road from Elm	1,700

Streets.	Feet.
East Spruce, Pine east	2,393
Valley	957
Auburn	2,596
Cedar	2,563
Central	4,983
Lake avenue	858
Cass	1,016
Laurel	4,576
Merrimack	3,630
Manchester	2,024
Amherst	3,163
Hanover	308
Concord	3,774
Lowell	6,380
Bridge	4,675
Pearl	4,996
East High	2,830
Orange	3,300
Myrtle	3,740
Prospect	2,838
Harrison	2,915
Brook	1,947
Blodget	1,408
Gore	308
Pennacook	1,408
Sagamore	638
Salmon	2,120
North	2,541
Webster	1,397
River road	1,614
Clark	440
Appleton	1,353
Bay	440
Chestnut	3,044
Pine	5,945

Streets.	Feet.
Adams	550
Ray	500
Union	5,291
Walnut	3,597
Beech	1,859
Ash	3,234
Maple	3,377
Nashua	396
Oak	792
Russell	1,430
Warren	495
Linden	495
Ashland	2,245
Lincoln	2,013
Dutton	385
Derry	100
Malvern	726
Jane	495
Arlington	1,100
Burnside	262
Old Bridge	2,685
Beacon	2,871
Milton	1,243
Belmont	2,871
Hall	2,871
Wilson	1,487
Total	136,594

NEW STREETS GRADED.

STREET.	Length in feet.	Cut or fill.	Inciden- tals.	Labor.	Entire cost.
Walnut, Salmon to Webster *.	1,134	Both..	\$38.69	\$1,286.49	\$1,325.18
Union, Auburn to Silver	3,000	Cut...	26.09	1,146.13	1,172.22
Cass, Central to Laurel.....	250	Both..	5.07	150.88	157.98
Laurel, west of Cass †	100	"	2.03		
Everett, Clark south.....	300	Cut...	16.09	283.50	299.59
Pearl, Morrison east †	130	Both .	2.64	135.00	137.64
Prospect, Hall east †.....	75	"	1.69	45.00	46.69
Linden, Prospect to Harrison†	245	Fill...	4.97	89.25	94.22
Harrison, Hall to Linden †	300	Both..	16.10	41.50	57.60
Beacon, from Lake avenue*..	150	Cut...	27.99	128.00	155.99
Green, east of Union	450	"	9.15	194.00	203.15
Belmont, Old Bridge north †..	484	Both..	10.83	101.00	111.83
Merrimack, Beacon east *.....	500	"	45.67	535.00	580.67
Calef road.....	200	"	4.06	117.00	121 06
Silver street.....	500	"	20.15	326.00	346.15
Kennedy street †.....	300	"	16.10	41.50	57.60
Dump, Pine, Green north.....	50	Fill ...	.....	.....	.....
Dump, Auburn, Maple west...	50	"	.....	.....	.....
Dump, east of Maple	60	"	.....	.....	.....
Dump, Lincoln, south Auburn	100	"	.....	.....	.....
Dump, Sagamore.....	100	"	.....	.....	.....
Dump, Liberty, north Salmon	60	"	.....	.....	.....
Highland, Bridge south.....	390	Cut...	17.91	310.00	327.91
Bridge, Highland east & west.	550	"	20.00	543.75	563.75
Hall, Bridge north	750	Both .	25.25	590.00	615.25
Trenton	1,350	"	.....	183.00	183.00
Page street.....	2,145	"	.....	380.00	380.00
Totals	13,723	.....	\$310.48	\$6,627.00	\$6,937.48

Average width of street, 50 feet.

* These streets were blasted through rock. † These streets not built up to grade.

Labor charged to scavenger service in all cases where its cost is not given.

GRADING FOR CONCRETE.

LOCATION.	Length in feet.	Width in feet.	Cut or fill.	Labor.
Wilson, Spruce to Valley.....	400	8	Cut...	\$86.56
Wilson, Spruce to Valley.....	450	8	Fill...	.....
Sagamore and Union.....	300	8	Cut...	38.25
Pine, North of North.....	85	8	Fill...	20.50
Amherst, near Ashland.....	350	7	Cut...	20.75
Elm and Appleton.....	160	8	Both..	4.50
Walnut, near Webster.....	60	8	Cut...	17.25
Union, north of Sagamore.....	50	8	"...	10.06
Ashland and Arlington.....	150	8	"...	22.80
East High.....	100	8	"...	7.00
Belmont and Merrimack.....	225	8	Both..	20.63
Pearl, Women's Aid Home.....	725	8	Fill...	58.00
Elm, between Myrtle and Prospect.....	.....	8	"...	8.25
Elm, front Weston block.....	.....	8	"...	17.75
Near North End Railway Station.....	.....	8	"...	5.50
Lowell, near Belmont.....	75	8	"...	20.75
Central, east of Hall.....	100	8	"...	5.75
Elm and Appleton.....	225	8	Cut...	19.50
Beacon, south of Laurel.....	75	8	Fill...	10.50
Central, east of Beacon.....	100	8	"...	8.00
Laurel, east of Beacon.....	200	8	"...	35.75
Laurel, east of Beacon.....	250	8	Cut.....	.....
Amherst, Pine to Union *.....	185	8	"...	103.50
Salmon and Union.....	100	8	"...	45.00
Salmon and Union.....	100	8	Fill.....	.....
Everett, Clark south.....	300	8	Cut...	27.00
Pearl and Morrison.....	200	8	"...	23.75
Ash, between Brook and Gore.....	50	8	Fill...	11.75
Prospect and Linden.....	200	8	"...	25.00
Russell and Prospect.....	50	8	Both..	9.75
Elm and Myrtle.....	300	14	Fill...	34.00
Hall, near Lowell.....	120	10	Cut...	25.25
Salmon, Liberty to Walnut.....	.....	8	Fill...	31.75
Gore, Walnut easterly.....	150	8	"...	19.75
Myrtle and Russell.....	75	8	"...	14.75
Spruce and Beacon.....	50	8	Cut...	8.15
North River road.....	400	8	Fill...	16.00
North and Pine.....	150	8	"...	5.50
Pine and Salmon.....	125	8	"...	6.50
Between Salmon and Sagamore.....	50	8	Cut...	4.75
Beacon and Lake avenue †.....	100	8	"...	170.50
Union and Salmon.....	300	8	Fill...	19.50
Shasta.....	300	8	"...	15.50
Calef road.....	500	8	"...	35.50
Merrimack, east Beacon.....	400	8	"...	16.50
Totals.....	8,285	.....	.....	\$1,107.70

* Sidewalk cut down about three feet in front of the Gymnasium and Towne property.

† Cut through solid ledge.

COBBLE GUTTER PAVING.

STREETS.	Sq. yds.	No. loads.	Cost per load.	Cost of stone.	Cost of labor.
Merrimack, Belmont east ...	144	14	\$1.75	\$24.50	\$30.24
Belmont, Merrimack north...	102	13	"	22.75	21.44
Arlington, east of Warren....	72	6	"	10.50	13.00
Water and Mechanic, Elm to back street.....	114	13	"	22.75	28.25
Pearl, Linden to Russell.....	516	52	"	91.00	113.40
Sagamore ..	200	35	"	61.25	48.60
Arlington, Linden to Ashland	78	10	"	17.50	20.25
Hall, Manchester to Hanover	39	5	"	8.75	19.20
Elm, corner Webster.....	55	5	"	8.75	12 80
Lincoln.....	11	1	"	1.75	2.00
Around standpipes.....	147	.....	"	.....	24.40
Amherst, Vine to Union.....	856	115	"	201.25	214.00
Merrimack, Union to Beech ..	389	50	"	87.50	83.50
Chestnut, Brook to Blodget..	171	22	"	38.50	34.50
Webster, at Children's Home	78	10	"	17.50	19.20
Brook, corner Ash.....	40	8	"	14.00	8.25
Spruce, Wilson to Hall	466	65	"	113.75	71.72
Elm, between Myrtle and Prospect.....	66	4	"	7.00	12.96
Arlington and Linden	312	40	"	70.00	45.36
Hall, Spruce, and Massabesic	122	23	"	40.25	29.16
Maple and Brook.....	112	11	"	19.25	35.50
Concord, Ashland to Belmont	505	85	"	148.75	108.30
North, Pine to Bay.....	448	59	"	103.25	69.50
Hanover back *.....	200	.....	.....	.....	39.50
Elm, corner Hanover †	200	.....	.....	115.75	59.75
East High	185	19	"	33.25	41.12
Laurel and Belmont.....	29	5	"	8.75	8.75
Central, between Pine and Union.....	8	1	"	1.75	2.50
Maple, Bridge and East High	8	1	"	1.75	2.50
North and Union.....	12	1	"	1.75	4.25
Totals.....	5,685	673	.....	\$1,293.50	\$1,223.90

* Old paving taken up from Elm, corner Hanover.

† Three carloads of granite block paving.

Total cost of the foregoing work, \$2,517.40 ; an average cost of \$0.442 per square yard.

PAVING RELAID.

Streets.	Sq. yds.
Canal, near station	160
Elm, sundry places	2,075
Elm, from Weston block	60
Hanover, Beech to Maple	533
Elm back, near Vine	240
Webster, west of Elm	66
Lake avenue, between Elm and Chestnut	100
Central and Franklin	16
Merrimack, between Pine and Union	33
Manchester, between Elm and Chestnut	89
Elm, between Pearl and Orange	20
Spruce, between Elm and Chestnut	7
Granite, near station	54
Total	3,453

Total cost of the foregoing work, \$400.30; an average cost of \$0.115 per square yard.

NEW CESSPOOLS.

LOCATION.	No.	Cost of material.	Cost of labor.
Merrimack and Belmont	3	\$35.72	\$30.78
Pearl and Russell.....	1	16.26	9.75
Linden and Prospect.....	1	16.26	9.75
Linden and Pearl.....	4	77.25	53.75
Water and Elm west back.....	3	57.46	48.05
Mechanic and Elm west back.....			
Brown avenue and Elm west back.....	2	31.85	16.00
Webster and Union.....			
Chestnut and Ray brook	1	14.30	8.75
Arlington and Warren.....	1	16.03	8.75
Webster and Beech.....	1	17.83	10.25
Appleton and Adams.....	1	14.80	10.00
Union and Salmon.....	1	14.61	7.50
Amherst and Union.....	1	14.04	10.25
Appleton and Union.....	1	14.34	8.75
Appleton and Elm	1	13.37	10.25
River road and North.....	1	15.85	8.00
North and Chandler.....	1	20.53	17.25
Union and Merrimack.....	2	26.18	12.96
Monroe.....	2	32.32	13.75
Brook and Chestnut.....	1	29.45	17.20
Webster and River road.....	1	15.44	7.20
Walnut and Webster.....	1	15.44	7.20
Wilson and Concord	1	16.28	8.00
Myrtle and Elm	1	14.84	10.50
Prospect and Elm.....	1	15.26	8.00
Concord and Ashland.....	2	33.97	14.25
Bridge and Ashland.....	1	16.07	7.25
Spruce, east of Lincoln.....	1	18.68	7.25
Spruce and Hall.....	4	68.04	15.50
Linden and Arlington.....	3	48.55	27.80
Warren and Arlington.....	1	17.49	8.00
Pine and Sagamore.....	1	18.50	12.00
Elm and Hanover.....	3	51.52	24.00
Back street between Sagamore and Salmon..	1	17.20	7.75
Back street between Ash and Beech	1	12.44	7.50
Bay and North.....	3	51.93	30.50
Pine and North.....	3	60.15	33.50
Chestnut and North.....	1	17.27	8.00
Malvern and High.....	1	17.56	9.75
Malvern and Bridge.....	1	18.75	10.50
Liberty back.....	1	21.88	8.00
Bridge and Warren.....	1	16.66	9.50
Spruce and Chestnut.....	4	72.95	35.50
Russell and Prospect.....	2	32.21	24.00
Malvern and East High.....	1	16.28	9.50
River road near A. Elliott's.....	1	6.40	7.00
Pine between Brook and Blodget.....	1	15.47	7.50
Manchester, near Battery building.....	1	16.09	8.75
Auburn and Pine.....	6	105.28	81.00
Gore and Union.....	3	66.67	37.50
Prospect, near Linden.....	2	32.19	17.25
Hall and Lowell.....	1	16.50	7.50
Hanover back, between Union and Beech...	1	18.00	6.50
Hall and Spruce	1	13.11	7.00
Elm east back, between Pearl and Orange....	1	18.80	6.50
Lake avc., back st. bet. Spruce & Lake ave.	1	17.82	6.50
Central, near Cass.....	1	12.65	6.50
Gore, near Pine	1	17.09	6.50
Totals	92	\$1,539.88	\$868.69

REPAIRED CESSPOOLS.

LOCATION.	No.	Cost of material.	Cost of labor.
West Cedar, below Franklin	1	\$1.53	\$6.00
Canal and Depot	1	1.22	2.00
Elm and Hanover	1	2.65	2.25
Elm and Amherst	1	3.56	3.78
Depot and Canal	1	1.55	3.00
Hanover back, near F. X. Chenette's	1	1.55	2.50
Auburn and Franklin	1	14.00	7.50
Elm, south of Bridge	1	.21	3.50
East High and South	1	.92	2.00
Pine, between Lake avenue and Central	1	1.85	3.00
Myrtle and Elm	1	6.32	9.00
Amherst, near Lincoln	1	8.43	3.50
Wilson, between Lake avenue and Central	1	9.06	4.50
Elm and Hanover	1	2.16	2.00
Central and Pine	1	.63	1.50
Lake avenue, between Pine and Union	1	10.41	3.75
Totals	16	\$66.05	\$59.78

Cleaned out cesspools three times from December 28, 1893, to December 28, 1894, at a cost of \$635.70.

REPAIRED SEWERS.

LOCATION.	Cost material.	Cost labor.
Spruce back, Elm to Chestnut	\$4.66	\$25 00
Elm back, between Merrimack and Dean Ave.		33.50
Laurel, east of Beacon	1.36	3.50
Chestnut and Pennacook .....	.16	5.50
Chestnut and Central	6.66	11.00
Maple, near Lowell		40.25
Back street between Lake avenue and Central		30.75
Spruce back, east of Union	6.78	17.50
Derry and Concord	15.68	6.50
Malvern and Concord	15.68	6.75
Manchester back, between Pine and Chestnut	16.94	10.25
Birch, near Bridge	19.32	7.50
Totals	\$87.24	\$199.00

STONE.

Paid Charles A. Bailey, for covering stone, etc.	\$2,401.00
Warren Harvey, for covering stone, etc.	953.73
William H. Coburn, cobble stone	686.00
D. H. Dickey, for covering stone	32.39
F. S. Bodwell, for cesspool stone	167.25
Total	<u>\$4,240.37</u>

SNOW AND ICE.

At the beginning of the year an especial appropriation to cover the expenses incidental to the removal of snow and ice from the streets and walks, and sanding the sidewalks, was made, and \$4,000 was set aside for this purpose. The following will give an idea of the expenditures under this appropriation :

Pay-roll, January draft	\$1,238.82
February draft	3,134.95
March draft	907.61
Bills for sand, etc.	53.64
Total	<u>\$5,335.02</u>
Appropriation for snow and ice	\$4,000.00
Transferred from repairs of highways	<u>1,335.02</u>
	\$5,335.02

FENCING.

North River road	400 feet
Green street	80 "
Union street north	100 "
Union street south	600 "
Total	<u>1,180 feet</u>

Forty-nine orders have been given Charles H. Robie Co., and forty-one orders to J. T. Underhill Co., for concreting street crossings, sidewalks, roadways, and driveways, measurements of the same being taken by the city engineer. All bills have been certified by said measurements.

CONCRETE WORK.—CHARLES H. ROBIE CO.

STREET CROSSINGS.

LOCATION.	Square yards.	Price pr. yd.	Total cost.
Amory and Beauport.....	30.13	\$0.75	\$22.60
Cartier east back and Amory.....	18.89	.75	14.16
Dubuque and south side Amory.....	29.78	.75	22.34
Kelley and Beauport.....	29.60	.75	22.20
Webster and Bay.....	30.22	.75	22.67
North and Bay east back.....	13.33	.75	10.00
Adams and Appleton (2).....	58.74	.75	44.06
Union and Webster.....	30.22	.75	22.67
Webster and Liberty east back.....	17.77	.75	13.33
Beech and Gore (2).....	61.77	.75	46.33
Union and Sagamore.....	39.58	.75	22.93
Nashua and East High.....	11.11	.75	8.33
Wayne and Dubuque (3).....	90.53	.75	67.90
Wayne and Dubuque east back.....	17.78	.75	13.34
Wayne and Rimmon east back (2).....	26.67	.75	20.00
Wayne and Rimmon.....	30.13	.75	22.60
Chestnut and Pearl south back..	20.50	.75	15.37
Union and Sagamore.....	33.42	.75	25.06
Union and Sagamore north back.....	17.78	.75	13.34
Pine and Central south back.....	17.66	.75	13.24
Pine and Central.....	31.11	.75	23.33
Pine and Laurel (2).....	45.15	.75	33.86
Dean avenue.....	28.37	.75	21.27
Blaine, Winter and Main.....	48.27	.75	36.20
Valley and Jewett (2).....	49.15	.75	36.86
Arlington and Maple.....	30.94	.75	23.20
Myrtle and Russell.....	28.80	.75	21.60
Prospect and Russell.....	55.38	.75	41.53
Sagamore and Union.....	59.73	.75	44.80
Liberty east back and Salmon.....	13.33	.75	10.00
Blodget and Chestnut.....	67.73	.75	50.80
Brook and Chestnut.....	27.38	.75	20.54
Hanover and Elm.....	47.78	.75	35.84
Sagamore, west of Union.....	30.67	.35	10.73
Totals.....	1,180.40	.....	\$873.03

SIDEWALKS.

LOCATION.	Square yards.	Price pr. yd.	Total cost.
Amherst and Pine east back.....	43.27	\$0.30	\$12.98
Amherst and Pine east back, near Union.....	253.00	.30	75.90
South Main-street bridge.....	133.70	.45	60.16
Totals.....	429.97	.....	\$149.04

ROADWAYS.

LOCATION.	Amount material	Price.	Total cost.
Chestnut street, Concord common, recovered.....	1,271.99	\$0.45	\$572.39
Merrimack, Elm to Chestnut.....	sq. yds. 22½ loads	15.00	337.50
Chestnut, Merrimack to Amherst.....			
Union, Lowell to Concord, repaired.....	412 gals. pitch	.15	61.80
Elm street, corner Hanover.....			
Total			\$971.69

CROSSINGS AND WALKS REPAIRED.

LOCATION.	Square yards.	Price pr. yd.	Total cost.
Chestnut and Orange	35.49	\$0.37	\$13.13
Merrimack and Union.....	20.72	.45	9.32
Dean avenue.....	12.34	.45	5.55
Arlington and Maple.....	24.47	.45	11.01
Prospect and Russell.....	27.73	.37	10.26
Blodget and Chestnut.....	15.06	.45	6.77
Totals	\$135.81	.....	\$56.04

CONCRETE WORK.—J. T. UNDERHILL & CO.

STREET CROSSINGS.

LOCATION.	Square yards.	Price pr. yd.	Total cost.
Walnut and Webster.....	30.22	\$0.75	\$22.67
Beech and Lowell (2).....	66.22	.75	49.66
Linden and Pearl.....	25.78	.75	19.33
Belmont and Merrimack (2).....	52.28	.75	39.19
Union and Appleton.....	29.51	.75	22.13
Elm and Webster.....	19.11	.75	14.33
West Appleton and Elm (3).....	127.11	.75	95.33
Dubuque and Wayne.....	30.40	.75	22.80
Pearl and Linden (3).....	79.91	.75	59.94
Lake avenue south back and Hall.....	17.51	.75	13.13
Spruce and Hall.....	30.22	.75	23.66
Lake avenue and Pine.....	28.89	.75	21.67
Merrimack and Pine.....	31.40	.75	23.55
Concord and Belmont.....	20.80	.75	15.60
Elm and Webster.....	45.09	.75	33.82
Main and Amory (4).....	123.75	.75	92.81
Merrimack and Beech.....	19.28	.75	14.46
Monroe street, at Willand's.....	11.61	.75	8.70
Rimmon east back, at Kelley.....	15.78	.75	11.83
Chestnut and Cedar.....	37.15	.75	27.86
Chestnut south back and Wilson (2).....	53.96	.75	40.46
Union and Lowell.....	27.11	.75	20.33
Pearl and Ashland.....	29.78	.75	22.33
Linden and Myrtle.....	29.33	.75	22.00
Linden and Prospect (2).....	58.22	.75	43.66
Linden and Arlington (4).....	107.13	.75	80.35
Totals.....	1,147.55	.....	\$860.60

SIDEWALKS.

LOCATION.	Square yards.	Price per yd.	Total cost.
Dubuque and Wayne.....	6.57	\$0.45	\$2.96
Beauport at Thomas Bolton's.....	34.67	.45	15.60
Total.....	41.24	.....	\$18.56

ROADWAYS.

LOCATION.	Square yards.	Price per yd.	Total cost.
Bridge st. at east end McGregor bridge, recovered	390.45	\$0.37	\$144.47
Elm, at T. W. Lane's.....	15.32	.75	11.49
Total	405.77	.....	\$155.96

CROSSINGS AND WALKS REPAIRED.

LOCATION.	Square yards.	Price per yd.	Total Cost.
Walnut and Webster.....	2.52	\$0.45	\$1.13
Pearl and Warren.....	7.87	.37	2.91
Beech and Lowell (3).....	82.34	.37	30.46
Linden and Pearl	13.78	.37	5.10
Belmont and Merrimack	3.08	.37	1.40
Union and Appleton	10.30	.45	4.63
McGregor and Bridge.....	17.17	.45	7.72
McGregor and Amory	20.85	.37	7.71
Monroe at Bartlett's	68.61	.35	24.01
Linden and Myrtle.....	4.56	.45	2.05
Main and Amory.....	31.98	.45	14.39
Total	263.06	.....	\$101.51

SUMMARY.

Concrete Laid by Charles H. Robie Co., Street and Park Commission Department.

	Square yards.	Total cost.
New crossings.....	1,149.73	\$873.03
Recovered crossings.....	135.81	56.04
Recovered roadways.....	.....	971.69
New sidewalks	429.97	149.04
Total.....	1,715.51	\$2,049.80

Concrete Laid by J. T. Underhill Co., Street and Park Commission Department.

	Square yards.	Total cost.
New crossings.....	1,147.55	\$860.60
Recovered crossings.....	175.07	69.87
Roadways.....	403.77	155.96
New sidewalks	41.24	18.56
Recovered sidewalks	87.99	31.64
Total	1,857.62	\$1,136.63

UNDERGROUND WIRES.

The New England Telegraph and Telephone Company, having a branch office in Manchester, appeared before the board of mayor and aldermen July 3, and obtained a permit to lay and maintain underground conduits, cables, wires, and manholes under the surface of the streets of Manchester. On September 20 the company petitioned the street and park commissioners for a lay-out of streets in which they desired to place their conduits. The petition was granted, and the city engineer instructed to furnish said lay-out, the commission approving the same. A bond of \$10,000 was required of the company, with American Surety Company, of New York, as surety, in order to indemnify and save the city of Manchester harmless from all loss, costs, damage, or expense in any way arising from or growing out of the work to be undertaken. Work was commenced at once, after the necessary legal documents were passed, and conduits put in along west side of Elm street, ten feet north of the south line of Bridge street, ten feet away from the west curbstone of Elm street, to a point five feet northerly of the south curb line of Granite street produced into Elm street, and also on Hanover street, from Elm to Chestnut and the back streets adjoining. Other streets will be entered, as per the lay-out granted, as business demands.

SALEM STONE.

Many inquiries having been made about the Salem stone used extensively this last season, we give a few items concerning the nature of the stone, and method of obtaining it for macadamizing purposes. It is a bluish trap rock, having a fine, close formation which gives an excellent wearing quality under the friction of travel; while having no "rift" or grain, its irregular form of fracture renders it most desirable for packing into a compact mass. The Salem stone was not used to any great extent until 1890, being first utilized by the city of Salem, with excellent results as to wear on their streets. The stone is taken from Castle Hill quarry, Salem, Mass. About 12,000 tons a

month are turned out of the quarry during the summer months. The stone is broken into four sizes ; No. 1 size passed a $\frac{1}{2}$ inch circular hole in the screen, and is used for binding the surfaces of roads and sidewalks ; No. 2 size passed a 1-inch hole, No. 3 a 2-inch hole, and No. 4 a 4-inch hole. The second size is used for patching roads and filling holes or ruts. The dust or tailings are valuable for binding, or for finish, having remarkable cementing qualities. This stone weighs after screening about $1\frac{1}{4}$ tons to the cubic yard, that is, 27 cubic feet will weigh 2,500 pounds. This gives 4 square yards of street surface, 3 inches thick, to 2,500 pounds. Or, the amount of street surface 1 ton of each size will cover is as follows : No. 3, or 2-inch stone, measures $21\frac{2}{3}$ cubic feet to each ton, and will cover to the depth of 1 inch $777\frac{2}{3}$ square feet. The No. 2, or 1-inch size, measures $22\frac{1}{2}$ cubic feet, and will cover to a depth of 1 inch 810 square feet ; while the No. 1, or dust, measures 20 10-13 cubic feet per ton, and will cover 748 square feet of road surface to the depth of 1 inch. About 20 per cent should be allowed for rolling. The commissioners have used large quantities of this stone on some of the streets where there is heavy travel, with satisfactory results, notably Hanover street from Chestnut to Union, Pine from Beech to Maple, Merrimack to Hanover ; Merrimack, Union to Beech ; Granite, Franklin to Elm ; and Chestnut, Brook to Blodget ; Stark park driveways were also top-dressed with Salem stone ; 1,288 tons were used on the streets and Stark park at a cost of \$1,803.20.

Sewers.

No subject is of greater importance to a large and growing city with extensive manufacturing and commercial interests than that of sewerage. In our city the demand for drainage is imperative, and during the last few years much has been done to relieve this demand. The last year a large amount of work has been accomplished, though many ledges have been found that have increased the expense and retarded progress. Many sewers need relaying where cement pipe has been used in past years. Some

sewers need deepening, and some larger pipe. Then there is the constant, ever-increasing demand for new sewers, as new streets are built, and houses or blocks erected.

To many the process of the construction of a sewer is but partly understood, and as all are interested in the health of the city, and the means used to provide for effective sanitary conditions, we give a detailed account of the building of one of the sewers that was blasted nearly all the way through a ledge of rock. We refer to the sewer running from manhole, corner Russell and Prospect streets, to corner of Prospect and Hall streets, about 1,250 feet. Upon petition of property-holders at said location, the mayor and joint standing committee on sewers recommended the passage of an order to build this sewer, said order being passed by the city councils, December 6, 1892, expense of same to be charged to the appropriation for new sewers. After the passage of this order no active measures were taken until May 5, 1894, when the city engineer laid out the center of sewer and grade, and drove stakes for the batters, which were about 50 feet apart, and marked to excavate about 14 feet on an average, allowing for a gradual pitch towards the Russell-street sewer. Forty-five men were at once set to work along the south side of Prospect street, commencing at Russell, under the direction of the commissioners, with George M. Hobbs as foreman.

It was soon found that a ledge extended along the route, and the steam drill and portable engine and boiler were called into use.

The steam drill is a wonderful contrivance and does its work rapidly by means of steam generated by the boiler, and conveyed to the drill by flexible steel tubes. Holes to the depth of one to seven feet are drilled in the ledge and filled with a dynamite cartridge to which a connecting wire with platinum fuse is attached, and then fired by an electric battery by the following method: The dynamite cartridges, composed of nitro-glycerine, sawdust, etc., covered with oiled paper, are opened on one side by the foreman, with a knife, and the cap inserted, then a

half hitch of connecting wire is made about the cartridge, leaving two ends up to connect with the battery wires. The cartridges are then lowered into the holes and carefully covered with earth well tamped down, and then with heavy sleepers or large beams of wood, on top of which is placed brush, then large and heavy rope mats come next, weighing five or six hundred pounds each; finally, more railroad sleepers are piled on, connection is made with the battery wire, and the battery wire connected with the battery. When all is ready and the men at a safe distance, the foreman gives the word to fire, and a handle in the battery is pulled up and immediately pushed down, thus producing a current of electricity which heats the platinum fuse red hot and explodes the cap in the dynamite. About five holes are drilled for a blast. There were about five blasts a day while constructing this sewer.

To give a correct idea of the stock of tools necessary to build a sewer the following list, actually taken at the time, will show the labor involved. 12 pair rubber boots, 2 saws, 49 shovels, all kinds, 6 striking hammers, 44 picks, 8 iron bars, 3 handled axes, 2 sets of hand drills, 36 plug drills, 5 plug drill hammers, 3 chains, used for pulling up large stone from the ditch, 6 stone hammers for breaking stone, 2 sets of falls for laying pipe, 6 grub hoes, 3 water pails, 1 neck yoke, 4 tug ropes for lowering pipe, 7 wedges, 2 Edison pumps, 1 steam drill, battery, coils of wire, dynamite cartridges, 1 plumb bob, pipe of various sizes, hand dippers, suction hose, and tool boxes, iron pipe and pipe for steam drill, portable engine and boiler, 14 lanterns. All this stock is in charge of one man, who serves out the tools, etc., and collects them at night and locks them up. The portable boiler requires one man permanently, and at night a watchman cares for the same.

The explosives used for the sewer cost \$230.44, the incidentals, supplies, repairs, etc., amounted to \$445.30; the labor of men and teams, \$3,834.31. The watchman was on duty 23 nights, and the engineer 30 days. One and one half gallons of kerosene oil were used every week to keep the red lanterns burning

all night. Steam drill was run $26\frac{1}{2}$ days. Two Edison pumps were kept running most of the time to pump out water through suction hose from the sewer in order to lay pipe. The matter of laying the pipe is interesting. Each length of pipe (24-inch in this case) is rolled to the edge of the ditch, the tag rope attached and the pipe swung over the trench by means of the falls and carefully lowered to the bottom, where it is connected to the preceding piece, gently tamped until true to grade, then earth is placed around the bottom and joints cemented. A grade pole is constantly used to test the accuracy of the grade or depth; the correct centers are obtained by the plumb bob. Norton cement is used and the sand is screened on the spot and mixed with the cement. To show the amount of this large pipe laid each day we give the following, a correct record kept at the time. May 15 commenced to lay 24-inch pipe; laid 12-foot length iron pipe across culvert, and 22 feet of Akron pipe. May 16, laid 50 feet; May 17, laid 44 feet; May 22, 44 feet; May 23, 26 feet; May 24, 46 feet; May 25, 68 feet. This gives 312 feet laid in 7 days, or an average of about 44 feet in a day. When it is taken into account that an average of five blasts was made each day, this average seems to be good.

This sewer was commenced May 5 and completed August 1. Daily visits were made by the commission, and the city engineer and his assistants gave their careful attention to the progress of the work. A manhole at the junction of Linden and Prospect streets was put in at a depth of 17 feet. Connections were made with this sewer, and great satisfaction was felt at the successful completion of this long desired work. This sewer is only a sample of other sewers put in, notably at North River road, Hall street, and Hancock street, all of which were blasted through ledges; 29 sewers were voted in but not built at the beginning of the year, and 7 asked for but not voted, or a total of 43,265 feet or 8.18 miles, at an estimated cost of \$198,230.

The following table shows how the cost for new sewers has been divided:

MONTH.	Labor.	*Castings, repairs, black- smithing.	Pipe.	Inciden- tals.†	Cement.	Freight charges.	Lumber.	Brick.	Hard- ware.	Total cost.
January.....				\$18.10		\$5.60				\$5.60
February.....				3.90						18.10
March.....				41.87						3.90
April.....	\$785.06	\$92.84	\$411.62	83.24	\$452.30		\$7.62	\$91.00	\$35.64	1,917.95
May.....	2,611.68	453.06	2,471.82	163.76			81.94		61.26	5,791.98
June.....	4,028.14	72.50	*554.02	224.88		28.98	177.47	343.00	63.91	5,442.90
July.....	4,340.77	26.30	*535.10	205.87	297.50	39.50	22.50	385.00	92.94	6,046.39
August.....	5,758.53	226.70	614.04	339.50	479.37	121.40		808.50	26.77	8,231.78
September....	4,694.38	323.49	521.28			112.00				6,713.69
October.....	5,757.53	144.63	546.76	271.51	134.40		284.22		11.82	10,464.14
November.....	3,579.15	12.26	241.32	121.40	66.18		6.50		25.21	4,654.06
December.....	3,591.47	14.00		70.48	75.25		31.04		13.72	3,680.42
Totals	\$34,946.71	\$1,365.78	\$5,896.56	\$1,544.51	\$1,505.00	\$431.88	\$611.29	\$2,859.50	\$3,809.91	\$52,970.91

* Paid Amoskeag Manufacturing Co. for steel riveted sewer pipe for South Main street sewer.

† Includes all foreite powder used for blasting.

‡ Includes \$3,450 paid for Carson trench machine.

Montgomery	Conant	Northerly	10-12	1	451	1,128	509.12	June	1	June 16
Monroe	River road	Easterly	10-12	2	510	1,083	552.73	July	11	Aug. 21
Mile Brook	Bridge	Hall	12-24	3	807	3,336	2,692.94	"	18	Oct. 26
Myrtle	Hall	Easterly	10	.....	224	2,620	587.09	"	"	"
Main	South Main	"	Brick	5	1,127	11,220	8,259.81	"	2	"
"	"	Granite	"	.....	.....	.....	743.49	Sept.	28	"
North	Bay	Southerly	"	2	195	3,812	159.18	"	8	Sept. 12
North River road	Bay east back	"	10	1	192	0,829	159.18	"	11	Aug. 2
Orange	Webster	Northerly	"	2	616	6,272	3,803.76	June	1	Sept. 10
Prospect	Hall	Westerly	10	1	262	1,969	515.91	Sept.	1	Sept. 10
"	Russell	Linden	24	1	451	4,565	2,058.96	May	5	June 13
Pine	Linden	Hall	12	1	774	3,394	3,092.44	June	13	Aug. 1
Pine east back	Amherst	Northerly	12	.....	44	0,947	41.38	Sept.	18	Sept. 17
"	"	"	10	1	175	1,074	188.07	July	14	July 17
Pine	Green	Southerly	15	2	402	3,460	1,465.85	Nov.	5	Dec. 5
Pearl	Auburn	Green	20	1	540	2,944	1,587.86	Oct.	2	Nov. 1
Prospect	"	Easterly	10	.....	138	0,762	105.21	Aug.	10	Aug. 14
Rimmon	Russell	Westerly	10	.....	124	1,369	169.79	Oct.	15	Oct. 18
Russell	Amory	Southerly	10	2	676	0,573	387.48	June	18	June 22
"	Harrison	"	8	.....	66	1,370	90.40	Oct.	17	Oct. 18
Schiller	Merrimaek	River to Hill	15	2	633	0,611	386.76	Aug.	13	Sept. 10
"	Hill	Easterly	10	.....	73	0,403	29.43	Sept.	9	"
Salmon	Union	Walnut	12	1	124	1,990	246.78	Aug.	21	Aug. 27
Sagamore so'th back	"	Westerly	12	1	174	2,288	398.12	"	24	Sept. 3
Spruce south back	Elm east back	Chestnut	10-12	2	350	1,300	455.16	Sept.	27	Oct. 5
Spruce	Chestnut	Westerly	10	1	110	1,651	181.65	"	27	"
Union east back	Webster	Southerly	10	1	100	1,259	125.93	May	3	May 5
Webster	Walnut	Beech	15	.....	254	2,521	640.40	April	25	May 5
"	Liberty	Union	10	1	231	0,713	164.78	"	30	"
West	Clinton	Northerly	10	.....	24	1,160	43.58	Dec.	20	Dec. 22
Wayne	Dubuque	Easterly	12	1	71	1,040	73.98	May	16	May 26
							\$46,116.01			
				64	19,612					

* These sewers, Mead & Mason land; covers the time from commencement to finish.

Length of sewers, West side	6,172 feet
Length of sewers, East side	13,440 "
	<hr/>
	19,612 feet
Length of brick sewers	1,850 feet
Length of steel pipe sewers	88 "
Length of iron pipe	36 "
Length of Akron pipe	15,817 "
Length of Portland pipe	1,821 "
	<hr/>
	19,612 feet
Cost of sewers, West side	\$14,096.71
Cost of sewers, East side	32,019.30
	<hr/>
Total	\$46,116.01
Average cost per foot, West side	\$2.283
Average cost per foot, East side	2.382
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Average total cost per foot	\$2.351

BRIDGES.

The following table gives the dimensions, material, and number of spans of the various bridges within the city limits.

LOCATION.	Length in feet.	Width of roadway	No. of walks.	Width of walks.	Material.	Arch- es or spans.
Amoskeag	765.5	20	1	5.5	Wood.	3
Bridge street, at canal	57	22.5	2	7	Iron.	1
Bridge st., McGregor and approaches	1,085	24	2	6	"	3
Cohas avenue, at Great Cohas.....	36	30.5	.....	.....	Stone.	2
Derry road, at Great Cohas.....	38	20	.....	.....	Wood.	1
Derry road, near Cohas avenue.....	20	17	.....	.....	"	1
Derry road, near town line.....	21	20.5	.....	.....	"	1
Dunbarton road, Black brook	25	17.5	.....	.....	"	1
Elm street, at railroad	89	29.5	1	4.5	"	1
Front street, Black brook.....	16.5	33	.....	.....	"	1
Granite street, at canal.....	56.3	37.3	2	6	Iron.	1
Granite street, at river.....	465.7	26	2	5	Wood.	3
Harvey road, at Great Cohas.....	32	21	.....	.....	"	1
Island Pond road, outlet to lake	41	16.7	.....	.....	"	1
Mammoth road, at Great Cohas.....	38	18	.....	.....	"	1
Mammoth road, near town line.....	14	20	.....	.....	"	1
Mill road, at Harvey's mill.....	59	20.5	.....	.....	"	3
Parker street, at railroad.....	53	24	2	6	Iron.	1
River road, at Goffe's Falls.....	30	30	.....	.....	Wood.	1
River road, at Little Cohas.....	16	20	.....	.....	"	1
River road, below James Cheney's...	6	16	.....	.....	"	1
South road	12	22	.....	.....	"	1
Webster road, at water-works dam...	100	17.5	.....	.....	"	5
Weston road, east of D. Connor's...	6	16	.....	.....	"	1
Second-street bridge	62	32.5	2	8.75	Steel.	1
Second-street bridge	127	32.5	2	8.75	"	1
South Main street	180	34	2	8	Stone.	2

Stone bridges, 2; iron, 4; wood, 19; steel, 2; total, 27.

West Manchester.

GENERAL REPAIRS, DIVISIONS 10 AND 11.

Graveled A to McDuffie street, 290 feet in length.

Graveled Cleveland street, 50 feet in length.

“ Parker “ 75 “ “

“ Second “ 700 “ “

Patched North Main street with 30 loads gravel from South Main street sewer.

Patched Parker street with 20 loads gravel from South Main street sewer.

Patched Sullivan street with 10 loads gravel from South Main street sewer.

Patched Granite street with 25 loads gravel from South Main street sewer.

Patched Front street with 25 loads gravel from South Main street sewer.

Patched South Main street with 20 loads gravel from South Main street sewer.

Patched North Main street with 10 loads crushed stone.

North Main street filled to a depth of one foot 350 feet in length.

Graded Third street 200 feet in length at a cost of \$20.

Dunbarton road filled and graveled 500 feet in length; labor, \$160.54.

Filled sidewalk in Amoskeag 800 feet in length.

“ “ Front street, 300 “ “

“ “ Farmer road, 100 “ “

Jones hill repaired with 35 loads gravel; 700 feet sidewalk built; labor, \$66.50.

Bushes cut on Railroad street, Hooksett road, Farmer road, Hackett hill road, Dunbarton road.

Crossings scraped, gutters cleaned out, stones picked up, streets patched, etc., through both divisions; labor, \$646.24, charged to the appropriation for the repairs of highways.

FENCING.

Douglas, Cleveland, Parker, and Second streets, gravel bank near Emerson's, Dunbarton road, corner Milford and Bowman, corner Granite and Turner, head of Sullivan, Bedford road, Mast road, and Hooksett road, Division 11.

Total number of feet, 1,814; labor, etc., \$56.33.

STREETS TOPDRESSED.

STREETS.	Length in feet.	Width in feet.	Material used.
Amory	320	26	Clay.
South Main, Log to Hancock.....	300	26	Ashes.
South Main, Log to Hancock.....	300	10	Gravel.
Blaine.....	300	34	Ashes.
Winter.....	75	12	Clay.
Amory.....	320	10	Ashes.
Riddle, sidewalks	1,100	27	Gravel.
Riddle.....	350	25	Clay.
Milford	850	26	Ashes.
Milford	850	26	Gravel.
School.....	1,900	26	Stone.
Bartlett.....	200	10	Gravel.
Granite.....	250	24	Clay.
Totals	7,115	.....	.....

Total cost of foregoing work, \$647.

GRADING FOR CONCRETE, DIVISION 10.

LOCATION.	Length in feet.	Width in feet.	Feet cut.	Feet fill.	Labor.
Bath, east of Second.....	100	8	.....	1½	\$8.00
Beauport, north of Amory.....	375	8	1	.....	30.00
Beauport, north of Amory.....	375	8	.....	1	
Amory, west of Cartier.....	600	8	3	.....	25.00
Kelley, west of Beauport.....	250	8	1	.....	13.00
B, west of A.....	250	7	1½	.....	10.00
Cartier, north of Putnam.....	250	8	1	.....	10.00
Beauport, north of Schuyler.....	250	8	3	.....	15.00
Beauport, north of Schuyler.....	250	8	.....	3	
B, south of Milford.....	300	7	.....	1	10.00
C.....	100	7	.....	1	5.00
Conant.....	200	8	.....	1	15.00
Cartier.....	100	8	.....	1	9.00
Douglas.....	100	7	.....	1	8.00
Third, Walker south.....	100	8	.....	1	17.00
Third, Walker south.....	100	8	1	.....
Adams.....	275	8	.....	½	15.00
Rimmon.....	200	8	2	.....	35.00
Wayne.....	420	8	.....	½	20.00
Dubuque.....	100	8	½	.....	15.00
Riddle.....	150	6	½	.....	10.00
Riddle.....	150	6	.....	½	
Mast road.....	290	8	½	.....	30.00
North Main.....	60	8	.....	1	10.00
Blaine.....	450	8	.....	5-6	5.00
Parker.....	120	6	.....	5-6	5.00
Riddle.....	300	7	1	.....	10.00
Riddle.....	88	6	.....	⅓	
North Main.....	400	8	⅓	.....	10.00
Beauport.....	110	8	½	.....	10.00
School.....	100	8	½	.....	5.00
Main-street extension.....	650	8	.....	1½	20.00
Rimmon.....	200	8	.....	1	10.00
Wilton.....	50	8	.....	½	5.00
Cartier.....	600	8	.....	¾	20.00
Dartmouth.....	400	8	½	.....	20.00
Dartmouth.....	400	8	.....	½	
Rimmon.....	150	8	¾	.....	15.00
Blaine.....	50	8	.....	½	
Totals.....	9,413	.....	.....	.....	\$445.00

BRIDGES AND CULVERTS.

Bridges Repaired.— Parker-street bridge replanked; cost of material \$5, labor \$9.50. Black brook bridge repaired.

New Culverts.— Mast road, one wooden culvert at a cost of \$4. Bedford road, one wooden culvert at a cost of \$4. Front street, Amoskeag, one wooden culvert 34 feet long at a cost for material of \$5; labor, \$5.

Culverts Relaid.—Bartlett street, one pipe culvert 50 feet in length, using 15-inch pipe; cost of pipe, \$14.07; labor, \$13. Mast road, one wooden culvert relaid at a cost of \$4. Division 11, one pipe culvert 9 feet long, using 20-inch pipe; old pipe and labor, \$5. At Jones hill, Amoskeag, one wooden culvert at a cost of \$6. Pipe culvert, Goffstown road, 30 feet of old 10-inch pipe, at a cost of \$5.90. Pipe culvert on Railroad street, 20 feet old 10-inch water pipe, at a cost of \$5.

COBBLE GUTTER PAVING, DIVISION 10.

STREETS.	Length in feet.	Cost of stone.	Labor.
Beauport and Amory.....	660	\$37.04	\$50.00
Marion.....	88	10.26	9.00
B, southerly.....	425	15.86	15.00
Amory.....	1,000	94.50	77.04
Kelley.....	225	24.70	21.22
Standpipe on Amory street.....	8	5.00	6.55
Green.....	120	8.00	16.00
Walker, northerly.....	550	40.00	100.00
B, northerly.....	425	39.00	54.00
Second, northerly.....	125	25.00	25.00
Winter, driveway.....	12	8.40	7.00
Granite, driveway.....	12	2.22	2.00
Wayne.....	566	43.50	100.00
Cartier.....	53	.....	10.00
Dubuque.....	300	.....	75.00
Riddle.....	800	.....	125.00
Milford, driveway.....	20	.....	10.00
South Main, driveway.....	10	.....	5.00
Bowman, driveways (2).....	16	.....	10.00
North Main, south of Amory.....	220	10.50	39.63
A and B.....	20	.....	5.00
Winter and Main.....	84	.....	15.00
Dover, driveway.....	12	.....	7.00
Totals.....	5,751	\$382.98	\$784.44

In all cases where there is no cost of stone given, stone was taken from city bank.

Total cost of foregoing work, \$1,168.42; average cost per foot, \$0.203.

PAVING RELAID.

Beauport, south of Putnam	25 feet
Clinton	8 "
Dover	8 "
B street	100 "
South Main	25 "
Forrest	20 "
Main, driveway	10 "
North Main	185 "
North Main, at J. D. Dana's	10 "
Amory, driveway	20 "
Amory	30 "
Wayne, two driveways	40 "
School, driveway	20 "
Amory, driveway	15 "
Kelley back	16 "

 532 feet

Labor, \$110.38.

South Main-street bridge, 227 yards block paving, 759 yards cobble paving. Labor for same, \$200.

REPAIRS OF SEWERS, DIVISION 10.

South end Cartier street, flushed out sewer.

North Main street, flushed out sewer.

Baldwin's yard, flushed out sewer.

End McGregor bridge, flushed out sewer.

North Main street, flushed out sewer.

A. C. Wallace's yard, flushed out sewer.

West street, flushed out sewer.

Douglas street, flushed out sewer.

Turner street, flushed out sewer.

South of Granite street, flushed out sewer.

A and B streets, flushed out sewer.

North end of Cartier street, flushed out sewer.

Beauport street, flushed out sewer.

Conant and Rimmon streets, lowered manhole.

Conant, between Barr and Montgomery streets, lowered three man-holes.

Rimmon street, raised manhole.

Dubuque street, raised two manholes.

Division 10, July, August, September, October, cleaned out cesspools.

Cost of material for foregoing work, \$17.67; cost of labor, \$230.68; total cost, \$248.35.

STREETS GRADED.

LOCATION.	Length in feet.	Cut or fill.	Inciden- tals.	Labor.	Entire cost.
Joliette, north of Amory.....	540	Cut...	\$11.83	\$334.75	\$346.58
Dubuque, north of Wayne....	575	Cut...	11.53	793.00	804.53
Cartier, north of Kelley *....	325	Fill..	6.53	75.00	81.53
Alsace, north of Amory.....	540	Cut...	11.83	680.52	692.35
Wayne, Dubuque to Rimmon..	220	Cut..	4.41	165.60	170.01
Rimmon, north of Conant....	330	Fill..	6.62	100.00	106.62
Conant, Barr to Rimmon....	250	Cut...	5.01	.....	.....
Conant, Barr to Cartier.....	325	Cut...	6.52	125.00	136.53
Barr, Douglas to Conant.....	225	Cut...	4.52	71.00	75.52
Gates, Dubuque west*.....	250	Fill..	5.01	50.00	55.01
Conant extension.....	350	Cut...	7.02	346.48	353.50
Dubuque, north of Amory....	675	Cut...	13.54	350.00	363.54
Dubuque, north of Amory b'k	140	Cut...	2.80	30.00	32.80
Kelley north	140	Cut...	2.80	33.00	35.80
Rimmon, south Kelley	50	Cut...	1.00	15.00	16.00
Dubuque, Conant northerly..	550	Fill..	12.08	227.00	239.08
Colby street dump †.....	150	Fill..	.....	.....	.....
Totals.....	5,635	.....	\$113.05	\$3,396.35	\$3,509.40

* These streets not built up to grade.

† Labor charged to scavenger service.

Average width of street, 50 feet.

MACADAMIZING, DIVISION 10.

Square, corner Amory and Main, 2,007 square yards.

Labor crushing stone	\$388.80
Salem stone	295.58
Concrete	81.30

Labor on street	\$853.55
Cost of stone chips	168.75
Incidentals	16.00
Total	<u>\$1,803.98</u>

NEW CESSPOOLS, DIVISION 10.

LOCATION.	No.	Cost of material.	Cost of labor.
Amory and Beauport.....	1	\$20.51	\$13.00
Kelley and Beauport.....	1	20.53	14.00
Clinton and Dover.....	2	25.80	17.00
Wayne and Dubuque.....	1	19.92	18.50
Second street.....	1	13.21	18.00
Blaine street.....	1	16.03	15.00
Marion and Main.....	1	15.47	18.00
Near North Weare Railroad track.....	1	10.20	20.00
Winter and Main.....	1	14.81	18.00
Schiller and Hill.....	1	10.97	18.00
Ends of South Main street bridge.....	4	69.47	125.00
Totals	15	\$236.92	\$294.50

REPAIRED CESSPOOLS.

LOCATION.	No.	Cost of material.	Cost of labor.
Amory and Beauport.....	1	\$1.85	\$2.00
Kelley and Cartier.....	1	1.85	2.00
B street, west of A.....	1	1.85	4.00
Granite and Barr.....	1	7.11	10.00
South end Turner.....	1	2.92	5.00
South of Blue Store.....	1	.....	3.00
B and A.....	1	1.24	2.00
Putnam and Dubuque.....	2	6.71	25.00
Winter.....	1	.21	3.50
South Main street.....	2	3.04	.....
Main and Wayne.....	1	2.98	2.00
Barr and Douglas.....	1	1.24	2.00
Wayne and Marion.....	1	2.98	2.00
Granite and West.....	1	2.44	5.00
South Main.....	1	2.06	1.00
Mast road.....	1	.21	2.00
Totals	18	\$38.69	\$70.50

REPORTS FROM HIGHWAY DIVISIONS.

Division No. 1.

JOHN C. RAY, AGENT.

The entire length of the River road, commencing at Clark street and running to the Hooksett line, has been repaired by the road machine ; several culverts have been built, and stones removed.

North Union street, from Clark street to Hooksett line, and Elm street, from Clark to north line of Elm street, have been turnpiked and topdressed with gravel the entire length, more than 100 rods. Average width of topdressing, 25 feet.

Sidewalk on Elm street, near Clark street, built. The roads have been broken out after snowstorms, and general repairs throughout the district attended to.

Division No. 4.

BYRON E. MOORE, AGENT.

Clayed and graveled on River road, north of Goffe's Falls village, about 100 rods, and south of the village about 10 rods. Turnpiked and graveled what is known as Webster's Hill, at the north end of the district. Average width of turnpiking, 14 feet.

Built 1,980 feet of fencing on the River road east of Clough's farm, and widened said road about 10 feet for a length of about 2,000 feet ; cost of widening road and putting up railing, \$170. The timber having been cut off along the road, it became necessary to put a fence up, and this highway being the principal carriage route to Nashua, widening has greatly improved the road for travel.

Lengthened culvert opposite the Clough place, 10 feet. The road was widened 6 feet and about 200 feet of fencing put up.

Bridge over Cohas brook taken up and relaid, using same timber and plank. Bushes have been cut throughout the district,

stones removed from the surface of the roads, large stone dug out, water bars repaired, mud holes filled, and general repairs looked after from May to November. All roads broken out after snowstorms.

Division No. 5.

MARK E. HARVEY, AGENT.

ROADS GRAVELED.

	Feet in length.
Londonderry, new road	1,535
Londonderry, old road	1,175
Nutt road	1,450
Weston road	835
South road	650
Center road	370
Total	6,015

Average width, 15 feet. Average depth, 6 inches.

TURNPIKED.

	Feet.
Londonderry, new road	200
Londonderry, old road	225
South road	265
Weston road	300
Center road	490
Total	1,480

Average width of turnpiking, 25 feet.

New railing built, Weston road, 75 feet ; Mill road, 125 feet. Graded by cut on Londonderry new road, 44 cubic yards, and on Dickey road 195 cubic yards. The hill near William C. Blodgett's has been cut $1\frac{1}{4}$ feet, or 168 cubic yards, which has been used as a fill at the foot of the hill, making the grade much easier ;

the road at this place has been widened 3 feet, for a distance of 225 feet.

Five large stones have been blasted and twelve boulders have been removed from Londonderry new road. Bushes have been cut along the principal roads (6,335 feet); no repairs on bridges have been made. Loose stones have been removed twice a month from all the roads from April to November, water bars repaired, etc.

Snow has been removed and the roads broken out after all storms.

Division No. 6.

I. T. WEBSTER, AGENT.

The principal roads in this division are much traveled on account of the beautiful drives about Massabesic lake, and consequently great care is needed to keep them in suitable condition. The Lake Shore road, the Island Pond road, and Cohas avenue have all been topdressed, low places filled, and culverts rebuilt.

GRAVELED.

									Feet.
Lake Shore road	.	.	.	.	.	.	.	.	462
Dickey road	.	.	.	.	.	.	.	.	1,188
Island Pond road	.	.	.	.	.	.	.	.	5,032
Cohas avenue	.	.	.	.	.	.	.	.	3,135
Total	.	.	.	.	.	.	.	.	9,817

Island Pond road : Corey hill cut, 420 feet long, 33 feet wide, 2 feet deep. Fencing, 112 feet; stonework, wing or retaining walls to hold fills, 12 perch. This road is very ledgy and is difficult to keep in good condition. The bridge near the Mill Dam House will soon need to be replanked and the fencing near the bridge should be repaired another season. The cut on Corey

hill was mostly through stone, and the material taken out was used to widen the road.

Cohas avenue roadbed was underlaid with stone 136 feet, 10 feet wide, railing 264 feet in length. Retaining walls to hold fills, 38 perch. A good clay bed on this avenue has been utilized for topdressing. Three culverts have been built on this avenue and two driveways put in.

Bushes have been cut all over the district, both sides of the road, about six miles. General repairs have been attended to, and the roads have been plowed out during the winter.

Division No. 7.

CHARLES FRANCIS, AGENT.

This district is rapidly becoming thickly settled, and the call for new streets and sewers has become pressing. During the last year a number of new highways have been built, and three sewers have been put in; edge stones set, culverts and cesspools built, and the road machine used on the outside roads. The following will give the work in detail:

NEW STREETS GRADED.

Location.	Length in, feet.	Labor.
Hayward, Cypress to Belmont *	1,250	\$550.00
Hayward, Porter to Mammoth road	500	250.00
Dearborn street	575	200.00
Auburn street	150	45.00
Taylor, Cilley road to Vinton †	1,050	61.00
Somerville, Jewett to Young †	525	20.00
Lake avenue, at Old Falls road		85.00
Totals	4,050	\$1,211.00

* Including two culverts. † Turnpiked.

STREETS GRAVELED.

	Feet.
Massabesic, Candia road to railroad	2,300
Spruce, Wilson to Massabesic	625
Hall, Spruce to Massabesic	150
Auburn, Belmont west	160
Taylor, Young road south	500
Total	<hr/> 3,735

Average, 28 feet in width.

CULVERTS.

Hayward street, near Taylor, 100 feet x 2 feet x 2 feet.

Hayward street between Taylor and Cypress, 50 feet x 1 foot x 6 inches.

GUTTERS PAVED.

Auburn street, 300 feet x 3 feet.

Cypress street, 50 feet by 3 feet.

Stone for East Spruce street, 40 loads.

Stone for Hall street, 10 loads.

CESSPOOL.

Corner Massabesic and Spruce, materials, \$11.11 ; labor, \$13 ; total cost, \$24.11.

SEWERS.

Cypress street, 130 feet 10-inch pipe, 22 feet 8-inch pipe. Cost of material, \$22.44 ; cost of labor, \$59.

Dearborn street, 116 feet 10-inch pipe. Cost of material, \$18.16 ; cost of labor, \$63.

Grove street, 49 feet 10-inch pipe, 10 feet 8-inch pipe. Cost of material, \$8.19 ; cost of labor, \$30.

(See Sewer table.)

CURB AND EDGE STONE SET.

Jewett and Valley streets, one 4-foot curb, 16 feet edge stone.
Belmont and Hayward streets, one 3-foot curb, 12 feet edge stone.

Cypress and Valley streets, one 4-foot curb, 16 feet edge stone.
Massabesic and Spruce streets, 72 feet edge stone.

GRADE FOR CONCRETE.

Jewett street, 200 feet, cut and fill ; labor, \$20.
Prescott and Wilson, 350 feet, cut and fill ; labor, \$40.
Wilson street, 625 feet, cut and fill ; labor, \$63.

ROAD MACHINE USED.

On Candia road, division line to Mammoth road.
On Mammoth road, Candia road to Hanover street.
On Hall, Massabesic to Hanover street.
On Mammoth road, from the reservoir to the division line.
On Jewett street, from Young to Cilley road.

Over 5,500 feet of sidewalks have been built ; Auburn, East Spruce, and Belmont streets have been greatly improved by grading. This division is fortunate in having a good gravel bank of about an acre. The lot has been leased by the city for twenty years. During the summer eighteen teams have been employed hauling gravel to different sections.

There is need of a sprinkler for this part of the city, as the streets are very sandy ; there is also a call for more watering-troughs. There should be gates at the junction of Massabesic street and the Portsmouth Railroad.

The general work in the district has been covered, bushes cut, and stone removed from the roads leading to the city. The highways have been made suitable for travel after snowstorms.

Division No. 8.

JOHN H. PROCTOR, AGENT.

There has always been a call for good roads, carefully kept, in

this district, for through it runs the direct route to Lake Massabesic, Auburn, Candia, Raymond, and other towns, and consequently the travel is heavy, especially during the summer. For the better accommodation of the public, these highways have been widened, topdressed, and kept in repair during the last season, in detail as follows :

ROADS TURNPIKED.

Hanover street	.	.	.	.	.	.	9,900 feet
Candia road	.	.	.	.	.	.	7,590 "
Proctor road	.	.	.	.	.	.	1,650 "
Old turnpike road	.	.	.	.	.	.	825 "
Lake Shore road	.	.	.	.	.	.	4,950 "
Lake avenue	.	.	.	.	.	.	825 "
							<hr/>
Total	.	.	.	.	.	.	25,740 feet

ROADS WIDENED.

Hanover, between Mammoth road and junction of Lake avenue, 150 feet in length, width 12 feet, cut 4 feet.

The same, at same place, length 500 feet, width 10 feet, cut $2\frac{1}{2}$ feet.

Candia road, length 600 feet, width 11 feet, cut 2 feet.

Lake Shore road, length 700 feet, width 9 feet, cut $1\frac{1}{2}$ feet.

Bridge street, length 200 feet, width 12 feet, cut 1 foot.

ROADS GRAVELED.

Hanover street	.	.	.	.	.	.	500 feet
Lake avenue	.	.	.	.	.	.	200 "
Candia road	.	.	.	.	.	.	400 "
Lake Shore	.	.	.	.	.	.	300 "
Bridge street	.	.	.	.	.	.	200 "
Proctor road	.	.	.	.	.	.	100 "
							<hr/>
Total	.	.	.	.	.	.	1,700 feet

Average width of graveling, 24 feet ; average depth, 6 inches.

Widened out three culverts on Hanover street, each 12 feet ; two culverts on Bridge street, 8 feet each ; one culvert on Candia road, 12 feet ; two culverts on Lake shore road, 8 feet each ; two culverts on Candia road were relaid ; 200 feet of railing was put up on Hanover street, between Mammoth road and Lake avenue ; sidewalk filled 150 feet in front of Robert Stevens's place, 7 feet wide and $1\frac{1}{2}$ feet deep ; ten large stones were blasted out on Lake Shore road and Bridge street ; bushes cut throughout the district for a distance of eight miles ; all roads broken out after snowstorms, and all necessary repairs made.

Division No. 9.

LESTER C. PAIGE, AGENT.

Number of feet of road turnpiked, 825.

Number of feet of road graveled, 5,247.

Loads of gravel used, 401.

Took up, cleaned, and relaid one culvert ; put up 174 feet of railing, and cut bushes throughout the entire district. During the winter months the roads were broken out. Repaired water-bars, removed stone from the roads, and attended to all general repairs.

Division No. 12.

EUGENE G. LIBBEY, AGENT.

The road machine has been used to great advantage throughout the division ; 200 loads of gravel have been drawn to the different hills, and all washouts and water-bars repaired ; 1,000 feet of substantial railing has been put up near embankments ; Mammoth road has been widened between John Gott's and J. L. Fogg's residences, and culverts built over.

A culvert 80 feet long has been built over Old Bridge street near the Mammoth road ; the bushes have been cut throughout

the district where they interfered with travel; the roads have been broken out during the winter, and all general repairs made.

SCAVENGER SERVICE.

This department of work has been faithfully done. From January 1, 1894, to January 1, 1895, 1,800 loads of perishable garbage were collected and carried to the city farm and utilized for fertilizing purposes. Three single teams have been employed all the time collecting. Very few complaints have been made. In most cases it has been found that the complaints arise from the practice of permitting farmers to take the garbage away, and when, for any reason, this service ceased, the garbage would accumulate and complaint would be made. Suitable cards have been provided whereby all can ascertain the time of removal of perishable matter, so there can be no excuse for want of information. All complaints have been attended to promptly.

Commons.

All the commons have received their usual care during the last season, under the direction of the commissioners and superintendence of Mr. John Fullerton.

Early in the year the commons were drained and the walks cleaned of sand as soon as skating was finished, and then all the grass surface was raked over, the trees trimmed, forty-two elms set out on Park common, the covers removed from the fountains and the same examined for repairs, cleaned, and painted. A dressing of ashes was next put on. All flower beds were prepared for flowers, suitable fences erected for their protection, the walks kept carefully swept, the seats repaired, painted, and set upon the commons. All this labor conspired to make these public squares what they have been rightly termed by our appreciative citizens, bits of country in the heart of the city.

Manchester is waking up to the necessity and the beauty of these breathing places, and many good suggestions have been

made for their improvement. To keep these commons neat and attractive in appearance has been the aim of the commissioners, and to introduce improvements as far as possible with the means at hand.

Much faithful work has been done. Twice a week the walks have been swept on each common ; all paper and refuse picked up each morning. All seats have been examined and repaired when necessary. Every other day the beds of flowers and dry places on the lawns have been wet down during the dry season. The grass on all the squares has been cut eight times. In October the leaves were raked up.

In November the fountains were covered for winter and seats taken up and housed. Early in December the grounds were flowed for skating, and this sport was indulged in until some time in March.

Thus it will be seen that this department under the care of the commissioners is an important one, and brings an ample return for the money expended in the moral and physical wellbeing of our citizens. More money is needed to facilitate the placing of flowering shrubs and suitable trees upon our commons. There should be a special appropriation to cover skating and water privileges.

The public appreciate and enjoy the band concerts, and it seems certainly wise to set apart a suitable sum for this purpose.

All electric lighting should be charged to lighting streets. The city ought to own a two-horse scraper to remove the snow from the overflowed places so the skaters may constantly enjoy themselves. No heavy teams should be allowed upon the lawns, and if these suggestions could be followed during the coming year our citizens would then take even greater pride than they do now in these healthful and beautiful resorts.

A summary of the work done on commons is given herewith, and the cost of the same :

Tools and supplies	\$84.84
Repairs, fountains, etc.	76.40
Water	700.00

Flowers	\$202.17
Grass seed and dressing	232.09
Trees and shrubbery	61.80
Light	36.00
Skating	454.33
Seats	39.82
Painting	15.79
Carriage hire	44.00
Labor, per pay-roll	1,556.22
Total	<u>\$3,503.46</u>

The above items include \$196 for wood ashes for dressing; \$700 paid the board of water commissioners; \$186 paid local florists for flowers; expenses of skating from December to March.

STARK PARK.

This park is a favorite resort of our best citizens; the views to be obtained up and down the Merrimack are truly most charming. This park will always have a place in the hearts of our patriotic citizens on account of its being the burial place of the Revolutionary hero, John Stark, and much has been done to beautify this riverside resting place during the last year.

The first work was commenced in January, when a stone wall was removed that separated the park land from that of the State Industrial School. This was accomplished by the means of drags on the snow, and the stone piled up along the route of the driveway to be built. In April the cemetery grounds were cleaned, and also in May before Decoration Day. In June, sixty trees were removed from the Industrial School land, mostly spruces, having an average of thirty-five feet in height, and a diameter of trunk of six inches to a foot. These trees were set out on the north and south sides of the park, and all lived but four. These trees added much to the beauty of the landscape. In July twenty acres of brush and weeds were mowed and cleaned up, and grading commenced for roadbed of southern driveway.

During July and August grading was finished and the foundation of stone put in. One hundred forty feet of drain was also completed and cesspools built. Gutters were paved on both sides of the driveway eighteen inches wide, extending the entire length of 656 feet. The foundation of driveway was composed of large stone which was broken with stone hammers, the stone coming from the wall, eighty-five loads from North River road sewer, and over 100 loads from Dodge's ledge close by the park grounds. After the foundation was prepared a heavy horse road-roller was hauled over it until the stone was thoroughly bedded. Over sixty loads of crushed stone were next put on, and finally the roadbed was served with a binder course of fine Salem stone and the eighteen-ton road roller used, producing a road that will last and is a pleasure to drive or walk over, consequently one that well repays the expense and labor put upon it.

After the driveway was finished, the west slope bordering on the same was graded with loam taken from the excavated roadbed, making a very short haul. Ninety dollars worth of ashes was used on this slope; it was also seeded down, brushed and rolled by horse roller. Six iron seats were placed where the view was best. Ten acres of woodland were cleared and trees trimmed, all drains cleaned out and fences repaired.

The appropriation should be larger for Stark and Derryfield parks to enable the commissioners to carry out the plan for improving these locations. Stark park needs more shrubbery; more fertilizer is also required. A low stone wall on the east side, running along the River road, with entrance gates and shelters for people built out of the same material as the wall, with tile roof, about thirty feet long and eight feet wide, similar to those in Franklin park in Boston, would be a great addition. These shelters should face the west and be furnished with abundant seating capacity, thus giving the spectator one of the finest river views in Manchester.

Much can be done with a little money, and there can be no doubt that within a few years, if a wise expenditure of the means appropriated is followed, Stark park will be the pride of our citizens and an ornament to the city.

SUMMARY.

Tools and supplies	\$35.00
Stone	204.09
Explosives	25.80
Labor	1,567.84
Total	<u>\$1,832.73</u>

DERRYFIELD PARK.

Within the past three years the section of land north of Bridge street, west of Mammoth road, east of Belmont street, and running north to the Amoskeag Company's land, known as Derryfield park, has become a very popular resort on account of its accessibility, its rustic beauty, its high and commanding situation, and the recent improvements completed under the direction of the street and park commissioners.

Nowhere has the work of the board been better appreciated than at Derryfield park. The rapid advance of real estate in the neighborhood and the erection of many houses has proved the wisdom of securing this land for park purposes, and more especially since the building of the high service reservoir, this section has attracted the attention of our citizens, and the beauties of the park have become well known and acknowledged.

Work began in February, when the trees that had been blown down during the winter were removed and cut up and carried to the city ledge, where they were used in firing up the crusher engine. In April the trees were cut in the grove where it was proposed to build a large circular driveway. Twelve thousand feet of lumber was sawed from the trees and used for park purposes, the refuse being hauled to the city ledge. In May the grove was cleaned up, seats erected, four swings set up, and grading for the half-mile circular track commenced; thirty-six men and four teams were employed. A cut of five feet average was made at the entrance at Bridge street, and gravel of first quality was taken out and used to fill the low places and for topdressing. One

thousand loads of stone from the dump of the high service reservoir were used as a foundation course on the east side of the circle where the land was heavy, this section being filled with stone to a depth of four feet and to a length of 700 feet. A ditch was also run under a portion of the roadbed, to drain low places, 500 feet in length. Two cesspools were built where the circle joined the east road through the grove.

The width of this circle is 34-foot center track, with an 8-foot width of turfed space, and inside all a 10-foot track for bicycles. The center is well topdressed with fine white gravel, the bicycle track topdressed with stone dust from the ledge. The banks on both sides the circle were turfed, seeded down, and topdressed with ashes from the city ledge near by. Twenty acres of weeds and brush were cut and four more swings set up, making eight swings in all in the park aside from the rope swings. These wooden swings have been filled every day and added much to the enjoyment of the children. It can be truthfully affirmed that during the last summer hundreds have visited this park each day, and our citizens who know a good horse and love to handle the reins, and who desire a chance to enjoy a fine drive, can be seen driving slowly around the circle at this park, while the number that used the bicycle track cannot be estimated.

Improvements are necessarily the order of the day when there is such a demand, and much can be done the next season if the appropriation will allow. A wide speedway has been suggested on Belmont street on the western side of the park, which should be one hundred feet wide at least, and immediate steps should be taken to secure this. A drain is needed from Pearl street to the park land to remove standing water, as the water is killing out the trees.

A pavilion or large shelter would be a great improvement in the southern part of the large grove to accommodate the people in case of rain; also in case of outdoor meetings, several of which have been held the past season. Very few of our citizens are aware of the extensive view of Manchester and the surrounding country at the elevation of the high service reservoir, and we

can announce with great satisfaction that a fine macadamized road is being built by the water commissioners up the hill to the reservoir, and it is intended to build this road to the extension of Myrtle or Prospect street, so that a beautiful drive can be taken over the hill that will overlook the reservoir and the entire city. An outlook near the reservoir would add still more to the charm of this locality, and we expect to see one of the finest parks in New Hampshire within a few years if wise and generous city governments take this view of the possibilities of Derryfield park.

The following gives a summary of the cost of work done :

Tools and supplies	\$99.02
Explosives	33.65
Signs	9.75
Swings	55.95
Labor	3,127.63
Total	<u>\$3,326.00</u>

Respectfully submitted.

G. H. STEARNS,
L. P. REYNOLDS,
H. P. SIMPSON,

Street and Park Commission.

REPORT
OF THE
SUPERINTENDENT OF SCHOOLS.

REPORT

OF THE

SUPERINTENDENT OF SCHOOLS.

To the City Councils, the School Board, and Citizens :

Being required in my official capacity as Superintendent of Public Instruction to report upon public school affairs in the city of Manchester for the year 1894, I respectfully present the following for such consideration as you may deem the subject and my treatment of it worthy.

PROSPERITY OF THE PUBLIC SCHOOLS.

It gives me pleasure to call your attention to the prosperity of the public schools. They have been steadily increasing their pupilage since 1886; and this year, notwithstanding that an unusual number of tenements have been vacated on account of the universal business depression, there has been a larger enrollment than ever before. The whole number of different pupils in the public schools of Manchester for 1894 has been 4,975, a gain of 200 pupils over the number enrolled last year. In no previous year have so many pupils been entitled to admission to the High school from the grammar schools. The number was 162; and 112 of these entered the High school at the opening of the fall term, which is a larger number by 29 than ever before entered this school during any one year.

The phenomenal increase in the enrollment of all the schools last year, the gain being 477, necessitated the erection of more schoolhouses; and the city government provided a substantial

and commodious, as well as a tasty and unique, schoolhouse,* containing four rooms, on Pearl street near the corner of Linden street. This house was first occupied last April, by two primary schools which were then transferred from the Ash-street house. The latter house, however, has had its eight rooms completely filled throughout the rest of the year; and its primary schools, as well as the lower primary school in the Pearl-street house, have been so crowded that it is evident there will be need of opening another school in the Pearl-street house early in 1895, both to relieve the Ash-street house and to meet the needs of its own rapidly growing district.

A duplicate of the Pearl-street schoolhouse has also been built this year by the city government for the benefit of the people in ward nine. This house is on Rimmon street, at its junction with Amory street. Two schools were opened in the Rimmon house at the beginning of the fall term. About 50 pupils were then transferred to this house from the Main-street school, which was itself immediately refilled by necessary transfers from the Varney school and by beginners from its own district; and the Rimmon schools were also increased by over 30 other pupils. Some of these were beginners awaiting the establishment of this school, while the others came from the parochial schools. Another school will be opened in the Rimmon schoolhouse at the beginning of next term, and there may be need of still another school in this same house early in 1895.

HOUSING THE SCHOOLS.

One of the most important matters with which those in authority over the schools have to do, is to secure proper locations and suitable buildings for housing the schools. To require children to go an unreasonable distance to school, and then to oblige them for nine months in the year to occupy buildings which are ill constructed in respect to light, heat, ventilation, and other sanitary arrangements, is substantially to render null and void nearly all the essentials for which children are schooled; because a pri-

* Floor plans designed by Supt. Wm. E. Buck. Architect, Wm. M. Butterfield.

mary condition to one's attainment of a noble character, and even moderate success in life, is that he shall be physically unimpaired, have good health; in brief, have "a sound mind in a sound body."

In order to secure the most desirable locations for schoolhouses, lots should be purchased in advance of their needs, and as soon as it is reasonably well settled that a given section of the city is about to take on a much larger growth. In case any lot should prove not to be needed, such could doubtless be sold later for more than enough to cancel its cost and all loss of interest. Recent experience proves the utility of the policy advocated. Call to mind the fine lot, and the desirable location of it, secured for the Pearl-street school; then think of the difficulty, the expense, and fruitless efforts made this year to relieve the overcrowded condition of the Lincoln-street, Wilson Hill, and Training schools, the failure being chiefly due to the impossibility of finding a lot so suitable that all concerned could agree upon one.

THE SCHOOL BOARD AN INDEPENDENT BODY.

By these considerations, I am reminded that a large majority of the members of every one of our school boards for at least the past fifteen years has felt the propriety and desirability of having such matters as the selection and purchase of schoolhouse lots, the adoption of plans for schoolhouses, as well as the construction of them, and the selection and purchase of furniture for the schools, as well as of all other school appliances, left wholly to the school board. And why not? If there is propriety in having those persons who may be selected as water commissioners given full control of the city water department, is there not equal propriety in having all affairs pertaining to the school department wholly in the hands of those selected for its special care? Are not those men selected on account of their fitness to care for the moral and intellectual interests of children at school equally competent to care for their physical environments? And is there consistency or reasonableness in holding a school board

responsible for the condition of such environments when the board has no power to command the funds necessary to make them right?

In short, ought not all things pertaining to the management of the schools to be entirely under the control of the board chosen to give them special care? Have not the fifteen or twenty men upon the school boards in past years shown themselves as competent and worthy to be wholly entrusted with the care of their one department as have the thirty-five or forty men who have for the same years been elected to membership in the city councils and therein exercised absolute control over many, great, and diversified interests? It will be readily conceded by all, I think, that the school board would manage the schools as wisely, economically, more opportunely, and with greater efficiency, if wholly responsible for all the affairs of the department and given full powers for its proper conduct. May it not, therefore, be expected that every city official, as well as all good citizens, will be sufficiently interested to make an effort to have the school board given exclusive authority over all matters pertaining to the management of the public schools?

It gives me pleasure in this connection to testify to the hearty interest and efficient action of Mayors Knowlton and Worthen, as chairmen of the school board for the periods during which they have respectively served, in materially aiding the board to promote the general efficiency of the schools; particularly in securing the two new and much needed schoolhouses on Pearl and Rimmon streets.

His Honor, the incoming mayor, will also have ample opportunity to exercise his ability in aiding the board to solve even more complex problems now confronting the city for the relief of overcrowded schools; and it may be well here to set forth somewhat at length the need of a new high school building, and of other school accommodations.

There has for several years been need of better High school accommodations; and now, it seems to me, the need is both imperative and immediate. I quote upon this subject from the

School Report of 1890 as follows: "The High school needs an addition of four recitation rooms, which would allow the two on the west of the assembly room to be added to that room, making it a fairly well lighted one and of sufficient size for the present needs of the school. As at present arranged, the assembly room is dark, gloomy, and poorly ventilated. Under the new recitation rooms should be a gymnasium and a drill hall for the use of both boys and girls. A much better scheme would be to build a new High school house on a suitable lot nearer the center of the city and use the present High school house instead of erecting a new building on the Bridge-street lot." *

Only about a month ago I received the following note from the principal of the High school:

HIGH SCHOOL, November 23, 1894.

Wm. E. Buck, Superintendent of Schools:

DEAR SIR,—Our study room has been so dark today that at the end of the fourth period I dismissed those who had no more recitations.

We shall have some new gas burners soon and then we shall be able to study by gaslight when necessary.

Respectfully,

ALBERT SOMES.

Comment upon this note hardly seems necessary, when it is borne in mind that the High school closes all its exercises daily at one o'clock in the afternoon. But it is an unpleasant fact, of which I am personally cognizant, that many pupils who were not aware they had any eye trouble before their attendance upon the High school have been obliged to make permanent use of glasses not long after entering this school; and I am of the opinion that any competent board of oculists, called upon to examine and report the conditions for study in the assembly room of our High school house, would declare the lack of sufficient light there highly injurious to the eyesight of pupils, and promptly condemn the use of the room for the purpose to which it is put.

* By Charles H. Manning, for the School Board.

The High school has been so crowded for the past four years, at least, that its efficiency has been impaired for lack of the two additional recitation rooms that were needed in 1890, when the matter of the quotation above given from the report for that year was presented to the city councils. At the present time the needs of the High school are much greater ; and I here present its case and the needed relief that might be afforded the Lincoln-street, Wilson Hill, Training, Ash-street, and Lowell-street schools, by using the present High school building for grammar and lower grade schools and constructing a new building for the High school. The following is a copy of my report upon this subject as presented to the school board at its regular meeting in November :

“The High school has 266 pupils. The assembly room seats but 187 pupils. The freshman class is so large (112) that it should be divided for recitation purposes into five divisions, instead of four as at present. This would necessitate the employment of another teacher, for whom no recitation room is available. Indeed, under existing conditions, the room fitted up for the exclusive use of instruction in drawing, as well as a small room fit only for a library or a supply room, have now to be used at great inconvenience for recitation purposes.

“For the good of the schools and the credit of the city alike, there should be procured at the earliest possible moment far superior accommodations for the use of our city High school ; so also for the manual training school and the evening drawing school. The needed accommodations could all be provided in one building, erected especially for the purposes named.

“Moreover, the rooms now occupied by the manual training and the evening drawing schools are greatly needed for other school purposes. The room on Lowell street, occupied by the manual training school, is sorely needed for another day school, to relieve the already overcrowded primary schools in the same building ; and the rooms on Spring street, occupied by the evening drawing schools, are needed for the use of the girls' evening schools for instruction in the common English branches. The

young ladies attending these schools are obliged, under present arrangements, to occupy, much to their discomfort, school desks designed for the use of lower grammar and middle school pupils.

“Again, the unfitness of accommodations for school purposes at the Wilson Hill schoolhouse, as well as the unfitness of the two rooms occupied by schools on the third floor of the Lincoln-street schoolhouse, the overcrowded condition of the Training school, and another threatened overcrowded condition of some rooms in the Ash-street schoolhouse, all conspire to suggest a suitable and economical use of the present High school building for schools below the High school grade. If the present High school building were now available for the use of other schools, there could doubtless be made such a selection of pupils from the Wilson Hill and Lincoln-street schools as would permit of the organization of four or more schools, whose pupils would be well accommodated in the present High school building, with opportunity for the transfer of the remaining Wilson Hill pupils to the Lincoln-street house, thus doing entirely away with the need of the Wilson Hill house. Another school could also now be organized in the present High school building from the surplus of pupils in the Training and Ash-street schools. These changes might postpone (perhaps, indeed, for many years) the otherwise needed early supply of two schoolhouses whose erection has recently been urged, one in the Lincoln-street district and one at the corner of Bridge and Union streets, because of failure to secure from the city government, when attempted a few years since, the action necessary for the early materialization of a new and suitable building for the High school, so sadly needed today.

“I call the attention of the board to these matters at this time because, first, they need early and prompt attention ; second, due consideration given this matter now may in the end save the city many dollars ; and, third, the people want, and can now best co-operate to secure, those arrangements for the housing of their children at school which are wisest and most economical. The time, too, has now come when it should be decided whether

the present High school building shall be made over or a new one built; for it must be evident to all who will examine the facts of increased attendance upon every grade of our schools, and the unfitness of many rooms for school purposes, that greatly improved accommodations are absolutely and immediately needed for the use of the High and other schools; and that unless they are furnished by the erection of a new house for the High school, other schoolhouses for other grades will need to be erected before next September, and the needs of the High school would still remain unsupplied.

“Permit me to advise the reference of the foregoing suggestions and the whole matter of better school accommodations, to the High school sub-committee for report at the next meeting of the board, in order that the board may, at the opening of the year, ask the new city government for such additional and improved arrangements for the housing of the schools as may after careful consideration be deemed necessary and best; for the city government can early in the year most conveniently arrange for sufficient appropriations and other necessities for speedily building new schoolhouses.*”

Since the foregoing was presented, I have investigated the number of pupils who have their residences in such places as would enable them conveniently to attend school in the present High-school building, including only those pupils who belong to the fourth division grammar, the middle, and the primary grades in the Ash-street, Lincoln-street, Wilson Hill, and Training-school buildings. The results of this investigation make it evident that, if the proposed plan of using the present High-school building for lower grade schools were made effective, the schoolhouse lot at the corner of Bridge and Union streets would not be needed for many years, perhaps never; and it also appears without doubt that the Wilson Hill school could be discontinued and its pupils all transferred to either the Lincoln-street or the present High school building, and that the Lincoln-

* This matter has since been referred to the city councils, with request for a supply of needed accommodations.

street school could have so many of its pupils transferred to the present High school building and to the Training school as would relieve it of the two small schools now upon its third floor, and also be relieved of enough pupils in its other rooms to enable it to receive its quota from the Wilson Hill house.

Another section of the city that will soon be demanding more and better schoolroom accommodations is that known as the South Main-street district. The present schoolhouse (like that at Wilson Hill) is old, narrow, lacking proper ventilation, and insufficient in floor space. The two rooms in this house cannot each well accommodate more than 42 pupils, and during the spring term there were 62 pupils in the lower primary room. An extra teacher was then hired to take charge of 15 to 20 pupils in an entry way hardly large enough to contain them, because there was no other place available for their care. Notwithstanding an entire class was promoted from this lower primary room at the close of the spring term, 65 pupils sought admission to it at the opening of the fall term. To relieve this room, 20 pupils were transferred to the Varney house, from which 20 were forced to the North Main-street house, and from there 50 to the new Rimmon school,—all of those whose residence would reasonably permit of such transfer. The rooms of the Varney schoolhouse are full, the South Main-street section is becoming more and more densely populated, and a new schoolhouse in this locality as large as the Rimmon house would not be greater by more than one room (to provide for future growth) than the needs of the South Main-street district would demand by the time a suitable house could be provided, even though preparations for it should be commenced at once.

ORGANIZATION.

The average number of schools for the entire year has been 100, as follows: The equivalent of 8 in the High school building; 26 grammar-school divisions; 20 middle schools, another also for one term (two more than last year); 39 primary schools (two more than last year); 2 partially graded schools, and 5 ungraded or suburban.

This shows a gain of four schools over the number of last year. The new ones are a primary at Hallsville,* another (one of the two transferred from the Ash-street house in April) at the Pearl-street house, one at the Lowell-street house for two terms and another at the new Rimmon house for one term (the two last named being equivalent to one school for the entire year); also a middle school at Hallsville, another in the new Rimmon house (for one term), and one at the Webster-street house which was a primary last year. Hence the primaries are *increased* by two schools instead of three as might at first appear.

The four additional schools for the entire year, and another for one term, have been necessitated by the annual increase in the pupilage of the schools. The gain for the year in the elementary schools has been 181, or an average of 42 pupils for each one of the new schools during the time of its existence.

Four rooms in the Training school for teachers have been cared for by the principal and her assistant†; and hence the 100 schools have had for the entire year 98 teachers plus the number of masters' assistants, or 6, ‡ and 3 special teachers,—1 each in music, drawing, and manual training. There have, therefore, been employed the equivalent of 107 teachers for the year.

THIS YEAR'S IMPROVEMENTS.

The salaries of the lady teachers in the grammar grades have this year been justly increased, and it is therefore hoped that our more worthy teachers of this class, at least, will not henceforth be so readily hired to go elsewhere.

It gives me pleasure also to note that, by a pending amendment to the rules of the board, it is proposed to make alike the salaries of all lady teachers below the grade of master's assistant. This is right, for the responsibilities, duties, anxieties, and labors

* In existence but one term last year, as was another at Webster street, and also the one transferred from the Ash street to Pearl street. The three were therefore then reckoned as equivalent to but one school for the entire year.

† Assisted by the young ladies constituting the sub-teachers' classes.

‡ The one at Hallsville for only one term, with the middle-school teacher for one term at the Rimmon schoolhouse, makes the equivalent of one teacher for two terms.

of the lower primary grade teachers are not second even to those of a master's assistant. Nor could it be expected that teachers of the lower grades, though perhaps conscious of their ability to do their best work in those grades, would therein long remain content when equally conscious of ability properly to teach a grammar grade, and the importance of the latter is magnified by a discrimination in the amount of the salary thereto affixed.

The work of our schools during the past year has been improved all along the line of their studies, under the direction of both regular and special teachers, particularly by an effort so to correlate all studies that whatever might be done for each study should result, to a greater or less degree, in promoting a better understanding of every one of all the other studies; as, for instance, the mutually reciprocal relations of geography and history would be properly treated while either subject might be the main topic of recitation, and at the same time instruction in language would be incidentally given by insistence upon a proper use of it in every recitation.

Greatest improvement has perhaps been made manifest in the extent and character of the instruction given in nature studies, plant life predominating. The exhibits made in the schools last June of what the pupils had learned and done in this matter were surprising revelations of what can be accomplished in odd moments, as it were, when children are given a subject that intensely interests them. The improved treatment of nature studies and their voluntary consideration in all the schools were doubtless largely due to the supply of helpful text-books furnished teachers early in the year, as follows:

Pratt's *Fairyland of Flowers*.—One copy for the two primary teachers in each building; one for the two middle-school teachers; one for the third and fourth division grammar-school teachers.

Spalding's *Introduction to Botany*.—One copy for the first and second division grammar-school teachers.

Newell's *Seed to Leaf*.—One copy for the two middle-school teachers; one for the third and fourth division grammar-school

teachers; one for the first and second division grammar-school teachers.

Newell's Flower and Fruit.—Assignment the same as for "Seed to Leaf."

Newell's Botany Reader, Part I.—Three copies for second division grammar grade.

Newell's Botany Reader, Part II.—Three copies for the first division grammar grade.

All of Newell's books, in any building, are understood to be accessible to every teacher for purposes of consultation or reference; and three of a kind may occasionally be borrowed for a reading lesson, by the class, of matter found adapted and desirable for such use.

The relation of language to the observations made and the facts discovered in the pursuit of nature studies causes so frequent and necessary exercises in language, by way of definitions, descriptions, etc., that the perfect naturalness and the great utility of the correlation of studies is here highly manifest. It may be also said that because teachers have come to realize that no slovenish work should be allowed in the use of language, whatever be the occasion of its use, the schools have for this reason made great advances the past two years in the character and efficiency of the instruction afforded in the study of language.

The board has this year also enlarged the supply of another means of training and culture that will forever prove a great blessing to all the children in our public schools. I refer to the books purchased as supplementary readers. These consist of geographical and historical readers, and still more valuable works containing in part the writings of such eminent authors as Hans Andersen, Scudder, Hawthorne, Irving, Scott, Dickens, Lowell, Longfellow, Whittier, Holmes, Emerson, Webster, Everett, and others of our more eminent statesmen. This supply, compared to the field it is designed to cover, is quite limited; and we naturally recur for help to the source availed of for several years by many other cities, to find the more extended aid felt necessary for the formation of right habits in reading among the members of the rising generation. This involves a consideration of the

RELATIONS OF THE PUBLIC LIBRARY TO THE PUBLIC SCHOOLS.

Remembering that some men have appeared to become eminent as a consequence of reading a meager amount of choice books, many times over, there may be those who would say that children of the present day read too much, that we should curb rather than encourage extensive reading upon the part of children. In reply, it must be said that conditions have so changed that the extent of children's reading is beyond the control not only of school boards but also of parents, in general. It is well known, too, that nearly all children who can read at all fluently do read quite extendedly. It is not, therefore, a question whether children shall read much, or not, but whether we should in this very important matter try to train them, as in other matters of importance, for their highest good.

There is a difference in the general intelligence of pupils in similar grades of school not farther apart than dissimilar localities of the same city, so manifest that even a casual visitor might discern it, which intellectual difference, if investigated for its cause, would be found to lie most largely in the different quality of the private reading matter of pupils. It has become a matter of common recognition that most youthful criminals have become such through the influence of vicious reading, and it is equally well known that in general those old in crime began their downward careers early in life. Is it not then quite probable that by the training of children to right habits in reading some would be saved from prison, or the gallows, and nearly all be led to a high appreciation of the communion that may be had through the silent page with the best thoughts of the best minds that the world has produced? Experience has shown that even children whose taste for good reading has been properly cultivated will eschew that which is unworthy of their time and attention. Because of this, leading educators have sought means for the general establishment of right reading habits in children. The school reader being insufficient, supplementary reading matter containing more extended selections from best authors was brought into the schools. This proved the utility of what was

being attempted ; children were delighted, but their needs demanded so much more similar material that the thousands in the schools could not be furnished through the school department alone, and hence extensive use has been made of the public library in all parts of the country. In 1886, and once previously, an attempt was here made sufficiently to supply the public schools with books from the public library ; but failure was the result, chiefly because of the lack of a modern system of handling the books at the library.

The vice-chairman of the school board, a gentleman always deeply interested in this subject and quick to recognize the recent highly improved facilities for the distribution of books at the public library, a few weeks since called attention to the importance of this matter and urged a renewed attempt to secure the co-operation of the authorities over our public library in behalf of our schools, assuring us of the cordial and enthusiastic aid of the librarian, Miss Kate E. Sanborn.

Acting under your instructions, the vice-chairman, greatly aided by the librarian, has nearly perfected a plan for a proper utilization of the public library by the older pupils in our schools. The object is two-fold ; for it contemplates both the establishment of an intellectual relish, or taste, for reading matter of the right character and likewise such training as will cause pupils to appreciate the value of a good library, as well as such instruction as will enable them to know how to use it. It is expected that the plan for a distribution of public-library books through the aid of the public school teachers to their pupils will be put in active operation early in 1895.

CONCLUSION.

Thanking the members of the school board and of the city councils, as well as many citizens and all teachers of our public schools, for encouraging words, good advice, efficient aid, and kindly consideration, I submit the foregoing as my report upon the public schools of the city for the last twelve months.

WILLIAM E. BUCK,
Superintendent.

Report of Miss Caroline E. Wing, Principal of City Training School for Teachers.

In accordance with the request of William E. Buck, superintendent of schools, I respectfully submit the following report :

It is now generally recognized that the profession of teaching requires for its pursuit, proper and adequate training. We are working with boys and girls who are to be the men and women of the future. Through the teacher the general culture and knowledge of the present is transmitted to the future. If we are performing the work in its highest sense, it must necessarily mean a constant growth on the part of the teacher, as well as of the child. Education does not mean pouring so much knowledge into a child, or covering the ground laid down by the course of study. It is to so develop and train the child that he may be able to do the most for himself and for others in the best way. These results are better obtained if the teacher has had some previous preparation for the work.

The object of the Training school is not to furnish employment to all those who may desire. It is to select from the applicants those who after a trial of six months have best proved to us that they have the ability to teach others. By so doing we insure for the schools of the city those who have been trained and are able to make progress for themselves and direct and control others in acquiring knowledge.

Although it is not possible to warrant the success of each individual as the vender does his wares upon the street, at the same time we may feel reasonably sure of the success of each. As a general thing after leaving the school the growth of the young teachers has been continuous.

The general conditions and regulations of the school remain unchanged. Since January 1, 1894, substitutes have been furnished for two hundred and eighty-one sessions of school.

The greater amount of work accomplished the past year I deem due to the help given me by the assistant principal, Miss Annie W. Cofran, and to the more suitable accommodations fur-

nished by the board. The young ladies generally have been willing, faithful, and enthusiastic, securing for themselves good results and seeking to raise the standard of the school.

Fully appreciating the kindness of the committee and superintendent in granting my many requests, I still think that the work of the school is very much hampered by the lack of room for the Training class, as well as more apparatus and additional grades of school.

It is not reasonable or just to expect a young teacher to attain as good results in teaching a grammar or middle school, when she has never had training in those grades, as one who has had such training. I strongly advise that the Training school be put into a building where there are middle as well as primary grades. More room for the special use of the Training class and more apparatus are also needed.

CAROLINE E. WING,

Principal of the Training School.

Report of Mr. Fred E. Browne, Principal of the Manual Training School.

In compliance with your request I submit the following report of the manual training school for the past year:

The interest in this line of our school work is still very manifest, and, as one might say, "at high tide."

I have had under my instruction in this department the past year 259 different pupils. The work as a whole has been very good, some excellent; but we are still aiming for something higher.

We are laboring under difficulties to some extent, owing to lack of room and equipment.

The course of study for the year has been the same as for last year with the addition of advanced study for the second year's course, consisting in part of dovetailing, making small boxes (dovetailed together), and making working drawings from models.

The second year's course is very much crippled from lack of power and lathes. The variety and attractiveness of the work under more favorable conditions could be very much increased. The desire which is expressed by pupils to make something useful or ornamental should be encouraged, but from lack of room and equipment we can not do this as we would like. Brackets, book cabinets, corner cabinets, wall pockets, and many other articles would be more attractive and beneficial, thereby putting into practice features which have been impressed on the mind and the application of certain features to actual work.

If not out of place, I would like to give a few points open for improvement as seen from the standpoint of an instructor.

First, a location as nearly central as can be, that pupils from the several schools may all receive instruction at the same place, by which means far better results can be reached. This is true to a larger extent than an outside party would at first suppose. The school at present is divided into three sections, and suffers in consequence for many reasons I will not take space to mention. The fact remains that better results can be reached if all classes attend the same place.

Secondly, let the room be fitted up with about twenty-two benches, two or three ten or twelve inch lathes, and a small jig or band saw, with power. This provides for classes of about twenty-five pupils each. Each class should have at least two hours for each lesson, the time to be divided between drawing, lathes, and bench work, at discretion of the instructor.

The time now given each class is too short in which to reach the best results. The pupil gets thoroughly interested in his work and is called upon to stop. One half hour now is worth more to the pupil than three fourths or even an hour in some cases in the beginning of the lesson. This has been proven to be true repeatedly when I have allowed pupils to remain after school hours, or time of closing. The requests for permission to remain after school are numerous; and I have granted them as far as I have been able, though not as much as I should like, because of other work which has required my attention.

The arguments in favor of a two hour session are many. I only mention one or two. The sessions of the several classes should be of equal duration. At present a portion of the classes get only one and one half hours, while others get one and three fourths and two hours. If the length of sessions be equalized the number of sessions would have to be decreased from fourteen or fifteen per week to ten per week, members in each class necessarily increased. The only drawback I can see to the above plan is the probable call for an assistant teacher on account of large numbers in classes, and the variety of work being done ; but would not the plain results justify the outlay in this instance ? Let us look to it that this school be made a success and no backward steps be taken.

A few words from others who are interested :

From Minneapolis : " Manual training helps to hold pupils in school. It has already had its effect with us. . . . The manual training has reacted upon the intellectual training. The mind once aroused to take an intelligent interest in one thing quickly extends that interest to other things."

From Philadelphia : " Judging from the experience of the past three years we have no doubt that in June next two hundred or more properly qualified applicants will be turned away for the lack of accommodations." The above was written in 1888 or 1889.

From New York : " Manual training does not mean merely the training of the hand ; it means the training of every faculty. . . . We aim at no specialty of any kind ; no carpentry, no particular art in designing or modeling, cooking, sewing, geometry, or mechanical drawing as such ; they aim simply at a rational means to obtain and transmit useful knowledge."

From " Self Help," by Samuel Smiles : " The use of early labor in self-imposed mechanical employments is curiously illustrated by the boyhood of Sir Isaac Newton. Though a comparatively dull scholar, he was most assiduous in the use of his saw, hammer, and hatchet — knocking and hammering in his lodging room,— making models of windmills, carriages, and machines of

all sorts. Smeaton, Watt, and Stephenson were equally handy with tools when mere boys, and but for such kind of self-culture in their youth it is doubtful whether they would have accomplished so much in their manhood."

I would like to take this opportunity to thank all with whom I have had to do for all kind words and co-operation; also to ask parents and citizens to come in and see what "our boys" are doing.

Respectfully submitted.

FRED E. BROWNE.

Report of Miss C. J. Emmins, Special Teacher of Drawing.

Looking backward at the year's work in drawing, I take pleasure in reporting a thoroughly satisfactory rate of progress. Never before in the many years of my supervising and teaching drawing have I been so delighted with the work of pupils as during the opening months of the fall term. The long summer vacation seemed as if it had never been; if anything the pupils seemed to do even better when school began than toward the close in June. No better test could be given of the lasting effects of the principles taught and that the proper free handling of pencil was indeed a habit. The quality of line, soft and gray, was general, and some very beautiful work was done.

In one school, the experiment was tried of allowing the pupils of the highest grammar class to make drawings of some difficult casts which were loaned from the High school. The experiment was highly successful. I hoped to introduce casts in all the higher grades but there came a temporary interruption to all school work and this advance was deferred till next year.

Drawing in general is taught as outlined in last year's work. The work in the High school is especially good in water-color. The September entering class has worked in crayon light and shade instead of charcoal. But one lesson a week has been

given each class since September, instead of two as heretofore. Many classes and limited time necessitated. A number of pupils in the higher classes have taken up drawing this year who are looking forward to being teachers. In the near future, this will probably lessen the time which now has to be given to the practice, in the training school, and allow more for theory of teaching.

Drawing was introduced into the suburban schools the past year. The teachers met me at the High school, one afternoon each month, for instruction and brought the work of pupils for inspection. Although this has been a part of the regular course in these schools for so short a time, the work done will compare very favorably with that of the city schools. Great interest in the study is reported by the teachers.

The masters' assistants in five buildings were dismissed for several Friday afternoons in the early part of the year, to meet me at the High school drawing room, for instruction in advanced drawing and practice in light and shade (charcoal). This has been very helpful to the work not only of the highest grammar classes but to others in the respective buildings. I hope more such opportunities will be given to increase the capacity for advanced work. Teachers' meetings held between 4.30 and 6 p. m., when there are no facilities for actual practice in drawing and when the energies are jaded from the day's exhaustive effort, however willing the spirit, limit the advance to a certain point. Two hours of daylight would be worth much more.

The use of drawing as an aid to other studies is gaining, but not yet carried as far as its value as a means of expressing thought would warrant. Perhaps if teachers in general had a little more themselves of the confidence that would come from practice in sketching and so could offer suggestions to pupils, the advance would be more rapid. A small class of teachers has met me once a week for this purpose for the last few months. In one building time is set apart for sketching, and two teachers give lessons in other rooms than their own. This is a movement in the right direction that I wish might spread.

The decoration of schoolrooms with reproductions of works of art goes steadily onward. This movement seems to me the most important of all in the school of today. That the thousands of children in the public schools should sit, for the forming years of their lives, in rooms where there hang around them reproductions of the noble works of art of the centuries—this in itself is a great thing. It is also a great thing that the small number of pupils who have been gifted with the divine power which makes a great artist should be encouraged in the development of this power. But to reach the ideal and give the children surroundings that shall lead them to a better understanding and enjoyment of their environment—both in Nature and in Art—and awaken in them the slumbering consciousness that they, too, may learn to create things of use and beauty for the help and happiness of their fellows, this is most of all a great thing.

This question comes to us all at some time or other, “What does today’s civilization amount to and what are we all working for?” For the large majority there seems to be little in life except to earn a bare subsistence, and this labor is directed almost exclusively to the mere satisfaction of the animal needs of the race,—food, shelter, and clothing. A glutted labor market and starvation in the midst of earth’s plentiful material resources periodically results.

The trouble is that the capacity for productive work is not being half exercised. There is need for work broader in scope and appealing to the best in man, to the instinctive desire for unselfish production and to do something which shall be the expression of some spiritual need or desire.

“The public schools do not exist to make specialists in any branches of labor. But they *should* exist to reveal to the child the powers of his being, opening the doors of earth’s treasure-house, showing him the ways, that at least he may *choose* which path he will.”

Let us teach the children a love for the beautiful as seen in picture, building, statue, and book—the “infinite riches in a little room.” Let us make a concerted effort to have our school-

room walls decorated with reproductions of the wealth of the world in the form of beautiful temples, paintings and statues which are so easily obtained and so inexpensive.

In the words of Morris, "What I want to do is to put definitely before you a cause for which to strive. That cause is the democracy of art, the ennobling of daily and common work, which will one day put hope and pleasure in the place of fear and pain as the forces which move men to labor and keep the world a-going."

In conclusion I wish to give thanks to the teachers for their most earnest co-operation, and to the superintendent for uplifting counsel, and to the members of the school board for their kind support.

Respectfully submitted.

CHARLOTTE J. EMMINS.

APPENDIX.

- I. POPULATION, ETC.
- II. SCHOOLHOUSES.
- III. SCHOOLS.
- IV. TEACHERS.
- V. PUPILS.
- VI. TRUANCY.
- VII. FINANCE.
- VIII. SCHOOL YEAR, 1894.
- IX. HIGH SCHOOL GRADUATING CLASS.
- X. WINNERS OF CLARKE PRIZES.
- XI. ORGANIZATION OF COMMITTEES, 1895.
- XII. LIST OF TEACHERS, 1895.
- XIII. SCHOOL YEAR, 1895.

APPENDIX.

STATISTICS.

I.—Population.

Population of the city by last census, 1890 . . .	43,983
Legal school age, 5 to 21.	

II.—Schoolhouses.

Number of schoolhouses in use	24
Number of schoolhouses not in use	1
(Old house in Hallsville.)	
Number of schoolrooms used for day schools*	102
(Five of the same, and two others, used for evening schools. Rooms unoccupied by city for day schools are two at Spring-street house, and four at the School-street house.)	
Number of rooms used for High-school classes	8
Number of rooms used for Grammar schools	26
Number of rooms used for Middle schools*	21
Number of rooms used for Primary schools*	40
Number of rooms used for Partially Graded schools	2
Number of rooms used for Ungraded schools	5

III.—Schools.

(All for both sexes.)

Number of High schools (buildings)	1
(None exclusively Grammar.)	

* Some of them for a single term, only.

(A)

Number of combined Grammar and lower grade (Middle and Primary) schools	10
Number of combined Middle and Primary schools	3
Number of schools all Primary grade	5
Number of Ungraded schools	5

IV.—Teachers.

Male teachers in the High school	3
Female teachers in the High school	5
Male teachers in the Grammar schools	6
Female teachers in the Grammar schools*	26
Female teachers in the Middle schools*	22
Female teachers in the Primary schools†	36
Female teachers in the partially graded schools	2
Female teachers in the Ungraded schools	5
Special teachers	3
Average number of male teachers‡	9
Average number of female teachers‡ §	95
Male teachers in the evening schools	4
Female teachers in the evening schools	9
Average number of male teachers in the evening schools	3
Average number of female teachers in the evening schools	5
Male teachers in the evening Drawing schools	2
Average number of male teachers in the evening Drawing schools	2

* Six of the 26 are masters' assistants, and 1 of the 22 is assistant to the principal of the Training school.

† Three of the 39 primaries were in the Training school. They had no regular teachers, being taught by sub-teachers under the direction of the principal, who, for convenience, is reckoned among the middle-school teachers.

‡ Exclusive of special teachers.

§ One of the masters' assistants and one of the middle-school teachers were employed for only one term each.

(B)

V.—TABLE SHOWING THE ATTENDANCE UPON THE VARIOUS DAY SCHOOLS FOR THE YEAR 1894.

SCHOOLS.	Whole No. enrolled.	Whole No. belonging.*		Average No. belonging.	Average daily attendance.	Per cent of attendance.	TEACHERS.
		Boys.	Girls.				
HIGH SCHOOL.....	306	127	136	251	240	95.6	Albert Somes, Master. G. I. Hopkins, sub-master. Guy W. Cox, 2 terms. Harry N. McLaren, 1 term. Mary Stanton. Nellie Pickering. Mary H. Cutler. Camille Benson. Mary A. Hawley, 2 terms. Theresa B. Stanton, 1 term.
GRAMMAR SCHOOLS.							
Franklin-street, First Division.....	76	23	22	38	35	92.1	{ C. W. Bickford, Master. Nellie M. Smith. Carrie E. Hoit. L. May Choate. Carrie E. Head. Assistants.
“ Second “.....	68	17	17	30	29	96.7	
“ Third “.....	65	11	20	30	28	93.3	
“ Fourth “.....	75	24	20	38	34	89.5	
Franklin-street totals.....	.....	75	79	136	126	92.6	
Spring-street, Fourth Division.....	53	23	16	27	26	96.3	Lizzie P. Gove.
Lincoln-street, First Division.....	92	22	30	44	41	93.2	{ Frank S. Sutcliffe, Master. Annie W. Patten. Belle R. Daniels. Mabel J. Brickett. Mary J. Corcoran. Mary F. Barnes. Assistants.
“ Second “.....	88	22	24	42	40	95.2	
“ Third “.....	58	11	23	29	27	93.1	
“ Fourth “.....	79	24	31	47	45	95.7	
Lincoln-street totals.....	.....	107	135	210	198	94.3	

(C)

Ash-street, First Division.....	88	20	27	43	41	95.3	{ A. F. King, Jr. Mary E. Buntion, 1 term. Mary Hickey Dowd, 2 terms. Mary Hickey Dowd, 1 term. Eliza P. Dougherty, 2 terms. Mabel R. Brown. Edith S. Dole. Assistants.
“ Second “	96	13	36	47	44	93.6	
“ Third “	95	25	24	43	40	93.0	
“ Fourth “	101	29	30	47	43	91.5	
Ash-street totals.....	87	117	180	168	93.3	
Varney School, First Division	67	13	25	35	34	97.1	{ George Winch, Master. Barbara B. Joy. Lillian Little, 2 terms. Rosabelle M. Franklin, 1 term. E. Maria Dickey. Ellen E. McKean. Millie S. Morse. Assistants.
“ Second “	88	26	29	44	42	95.4	
“ Third “	80	28	24	39	36	92.3	
“ Fourth “	83	22	21	38	36	94.7	
“ “ “	76	34	25	44	40	90.9	
Varney School totals.....	123	124	200	188	94.0	
Webster-street, First and Second Divisions	60	21	29	41	38	92.6	{ B. S. Andrew, Master. Abbie E. Wilson, Helen E. Frost. Alta C. Willard. Assistants.
“ Third Division.....	38	13	17	26	25	96.2	
“ Fourth “	52	20	12	29	28	96.5	
Webster-street totals.....	.....	54	58	96	91	94.8
Bakersville, Second and Third Divisions	41	18	5	20	19	95.0	{ Lizzie A. Burns. Lella A. Brooks. Assistants.
“ Fourth Division	49	13	8	22	20	90.9	
Bakersville totals.....	31	13	42	39	92.8	
Hallsville, Higher Grammar Classes.....	53	15	18	28	25	89.3	{ William H. Huse, Master. Ella F. Barker, 1 term. Ella F. Barker, 2 terms. Olive A. Rowe, 1 term.
“ Fourth Division	57	18	15	28	25	89.3	
Hallsville totals.....	.....	33	33	56	50	89.3
GRAMMAR-SCHOOL TOTALS .....	.....	533	575	947	886	93.6

* Exclusive of duplicate enrollments, no account being made of pupils received by promotion or transfer from other of the city schools.

ATTENDANCE UPON THE VARIOUS DAY SCHOOLS.— *Continued.*

SCHOOLS.		Whole No. enrolled.		Whole No. belonging.*		Average No. belonging.	Average daily attendance.	Per cent of daily attendance.	TEACHERS.
		Boys.	Girls.						
MIDDLE SCHOOLS.									
Webster-street, Higher.....	53	18	13	29	27	93.1	Eva F. Tuson.		
“ “ Lower.....	59	28	15	36	33	91.7	Edith L. Hammond.		
Ash-street, Higher.....	47	27	26	43	39	90.7	Emma J. Cooper.		
“ “ Lower.....	76	28	23	43	39	90.7	Kittie J. Ferren.		
Spring-street, Higher.....	58	18	24	31	28	90.3	Emma L. McLaren.		
“ “ Lower.....	59	21	18	35	29	82.9	Fannie D. Moulton.		
Lincoln-street, Higher.....	77	20	36	48	45	93.7	Nettie B. Fogg.		
“ “ Higher.....	79	18	16	30	28	93.3	Josephine A. Mitchell.		
“ “ Lower.....	99	28	21	47	44	93.6	{ Susie G. Woodman, 2 terms.		
Merrimack-street, Lower.....	83	29	20	29	25	86.2	{ Issa May Tuttle, 1 term.		
Franklin-street, Higher.....	71	24	18	30	27	90.0	{ C. E. Wing, Principal.		
“ “ Lower.....	68	28	23	37	34	91.9	{ Nellie C. Parker.		
Main-street, Higher.....	70	25	26	43	40	93.0	{ H. G. Flanders.		
“ “ Lower.....	98	31	27	48	44	91.7	{ Mary W. Mitchell.		
Varney School, Higher.....	76	21	31	42	39	92.8	{ Mary E. Brophy, 2 terms.		
“ “ Lower.....	83	26	28	47	44	93.7	{ Gertrude A. Burns, 1 term.		
Bakersville, Higher.....	56	18	18	25	22	88.0	{ Mary E. Moulton.		
“ “ Lower.....	57	13	17	27	24	88.9	{ Mary A. Seavey.		
Hallsville, Higher.....	70	19	21	34	31	91.2	{ Issa May Tuttle, 2 terms.		
“ “ Lower.....	80	23	14	34	30	88.7	{ Cora M. Farmer, 1 term.		
Rimmon School, Lower †.....	45	9	12	34	32	94.1	{ Augusta S. Downs.		
							{ Olive A. Rowe, 2 terms.		
							{ Susie G. Woodman, 1 term.		
							{ Mary G. Worthen.		
							{ Mary E. Brophy, 1 term.		
MIDDLE-SCHOOL TOTALS.....		472	447	772	704	91.2			

(E)

PRIMARY SCHOOLS.

Amoskeag, Higher and Lower.....	54	26	27	37	30	81.1	{ Edith L. Turner, 2 terms. Clydie M. Flanders, 1 term.
Webster-street, Higher.....	68	17	14	36	34	94.4	{ Jean Gillan.
" Lower.....	78	41	25	51	36	86.8	{ Mary E. Murphy.
Blodget-street, Higher.....	59	19	30	31	29	93.5	{ Gertrude H. Brooks.
" Lower.....	78	24	44	30	34	88.2	{ Edith M. Stebbins.
Ash-street, Higher.....	78	27	23	46	43	93.5	{ May F. Nutt.
" Lower.....	103	40	42	39	39	90.9	{ Bertha A. Young.
Lowell-street, Higher.....	94	34	45	36	33	90.8	{ Helen M. Morrill.
" Lower.....	87	37	26	29	26	89.6	{ Mary S. Richardson.
" Lower †.....	96	..	..	40	35	87.5	{ Mary A. Fay, 1 term.
Spring-street, Higher.....	85	36	25	41	38	92.7	{ Mabel M. Stevens, 1 term.
" Lower.....	73	34	37	40	38	94.9	{ Nellie I. Sanderson.
" Lower.....	67	32	34	39	35	89.7	{ Lucia E. Esty.
Wilson Hill, Lower.....	64	27	10	34	30	88.2	{ Florence M. Griffin.
" Lower.....	85	40	38	36	31	86.1	{ Hulda C. Graupner.
Lincoln-street, Higher.....	95	27	27	43	38	88.4	{ Ella Hope.
" Mixed.....	87	35	21	46	42	91.3	{ Cora B. Guilford.
Merrimack-street, Higher.....	105	33	31	45	39	85.7	{ Theodora Richardson.
" Lower.....	146	60	38	50	44	88.0	{ C. E. Wing, Principal.
Franklin-street, Higher.....	158	84	66	55	42	76.4	{ Annie W. Cofran, Assistant.
" Lower.....	62	14	29	33	31	93.9	{ Nellie M. James.
Main-street, Higher.....	83	31	40	40	36	90.0	{ Susie L. Dodge.
" Mixed.....	85	24	27	45	41	91.1	{ Gertrude A. Burrs, 2 terms.
" Mixed.....	83	24	27	42	38	90.5	{ Hellen Morison, 1 term.
" Lower.....	79	27	27	44	42	95.4	{ Lottie M. Clement.
" Lower.....	76	20	27	42	37	88.5	{ Mary A. Clement.
" Lower.....	71	42	29	42	39	92.9	{ Minnie E. Sturtevant.
Pearl-street, Higher §.....	112	54	52	40	33	82.5	{ Kate T. Clarke.
" Lower §.....	58	26	16	30	27	96.7	{ Gertrude L. Southard.
Kimmon, Mixed †.....	80	37	23	35	33	92.4	{ Mary G. Iynan.
Varney, Higher.....	65	10	19	49	44	89.8	{ M. Clara Hawks.
South Main-street, Higher.....	88	29	27	44	40	90.9	{ Marcia M. Moore, 1 term.
" Lower.....	83	23	20	36	33	89.5	{ Mary J. Walsh.
Bakersville, Higher.....	100	45	44	44	39	88.6	{ Delle E. Haines.
" Lower.....	75	27	21	36	33	91.7	{ Georgia M. Cheney.
" Lower.....	85	39	41	44	34	86.9	{ Izetta S. Locke.
							{ Annie Brigham.

* Exclusive of duplicate enrollments, no account being made of pupils received by promotion or transfer from other of the city schools.

† In existence but one term.

§ In the Ash-street house during the first term of the year.

ATTENDANCE UPON THE VARIOUS DAY SCHOOLS.—Continued.

PRIMARY SCHOOLS.—Continued.	Whole No. enrolled.	Whole No. belonging.*		Average No. belonging.	Average daily attendance.	Per cent of daily attendance.	TEACHERS.
		Boys.	Girls.				
Hallsville, Higher	83	26	12	37	34	91.9	Fertha L. Kemp.
" Lower	85	20	21	37	35	93.6	E. Alfreda Hall.
" Lower	92	41	47	38	33	85.9	Annie R. Corson.
Goffe's Falls, Mixed....	43	23	18	31	28	90.3	Bessie E. Dodge.
PRIMARY-SCHOOL TOTALS.....	..	1,303	1,206	1,556	1,388	89.2	
PARTIALLY GRADED SCHOOLS.							
(G) Amoskeag, Grammar and Middle	42	21	18	34	29	85.3	Lettie M. Smith.
Goffe's Falls.....	43	21	12	29	26	89.6	Georgie Kendrick.
PARTIALLY GRADED SCHOOL TOTALS.....	.....	42	30	63	55	87.3	
UNGRADED SCHOOLS.							
Stark District.....	28	13	13	16	13	81.2	Inez M. Warren.
Harvey District.....	22	9	10	16	14	87.5	Emma J. Ela.
Youngsville	39	17	12	23	21	91.3	Louis H. Bailey.
Webster's Mills.....	19	9	7	10	8	80.0	Josephine L. Riddle.
Mosquito Pond.....	15	8	6	8	7	87.5	Nellie M. Atwood.
UNGRADED-SCHOOL TOTALS.....	.....	56	48	73	63	86.3	
Aggregate totals for 1894.....	†	2,533	2,442	3,662	3,336	90.1	
Aggregate totals for 1893.....	†	2,445	2,330	3,425	3,111	90.8	

* Exclusive of duplicate enrollments, no account being made of pupils received by promotion or transfer from other of the city schools.
† Totals here would involve a multitude of errors. Many pupils would be reckoned two or three times, on account of numerous transfers from one school to another, made at the July promotion, at times of removal to other districts, etc., etc.

DAY SCHOOLS.

Summary of attendance upon the several grades of public day schools for the year 1894:

GRADES.	Whole number different pupils.		Average No. belonging.	Average daily attendance.	Per cent of daily attendance.
	Boys.	Girls.			
High	127	136	251	240	95.6
Grammar	533	575	947	886	93.6
Middle	472	447	772	704	91.2
Primary	1,303	1,206	1,556	1,388	89.2
Partially graded	42	30	63	55	87.3
Ungraded	56	48	73	63	86.3
Totals, 1894	2,533	2,442	3,662	3,336	91.1
Totals, 1893	2,445	2,330	3,425	3,111	90.8

EVENING SCHOOLS.

Summary of attendance upon the several grades of public evening schools for the year 1894:

SCHOOLS.	Whole number different pupils.		Average No. belonging.	Average daily attendance.	Per cent of daily attendance.
	Boys.	Girls.			
City hall	223	.....	62	48	76.3
Spring street .....	.....	125	33	26	78.8
School street	154	51	42	35	83.3
Drawing schools {	Mechanical	56	30	26	86.7
	Architectural	51	21	18	85.7
Totals, 1894	484	177	188	153	81.4
Totals, 1893	690	345	241	194	80.5

(H)

Evening School Teachers.

Charles E. Cochran, principal of City Hall school, for boys.

Assistants — Arthur W. Morgan, William J. Mooar, Honore J. Crough, Gertrude A. Burns, and Mary A. Walker.

Etta F. Boardman, principal of Spring-street school, for girls.

Assistants — Lizzie D. Hartford, Maggie Linen, and Hattie S. Tuttle.

L. H. Carpenter, principal of School-street school, for both sexes.

Assistants — Isabel Esty and Lottie M. Clement.

Evening Drawing-School Teachers.

John M. Kendall and Henry W. Allen.

(I)

GENERAL SUMMARY.

The following table presents the main features of interest pertaining to the attendance upon the public schools for the last ten years.

DATE.	Enrolled in public day schools.	Whole No. belonging.*		Average number belonging.	Average daily attendance.*	Percentage of daily attendance.	Average attendance at evening schools.	Graduated from grammar schools.†	Passed city schools for High.	Entered High from city schools.	Graduated from High school.	Average number teachers employed.‡
		Boys.	Girls.									
1885.	3,806	1,891	1,915	2,725	2,430	90.6	96	98	89	71	35	72
1886.	3,632	1,812	1,820	2,698	2,475	91.9	79	78	71	53	42	74
1887.	3,670	1,817	1,853	2,711	2,468	90.8	98	98	95	61	42	76
1888.	3,712	1,806	1,906	2,768	2,500	90.3	116	88	80	58	45	76
1889.	3,787	1,862	1,925	2,801	2,581	92.2	177	101	96	73	55	75
1890.	3,814	1,881	1,933	2,795	2,536	90.7	141	121	114	83	33	75
1891.	4,071	2,003	2,068	2,940	2,689	91.5	166	120	101	69	26	82
1892.	4,298	2,181	2,117	3,130	2,837	90.6	174	116	103	67	42	87
1893.	4,775	2,445	2,330	3,425	3,111	90.8	194	129	127	78	41	99
1894.	4,975	2,533	2,442	3,662	3,336	91.1	153	175	162	112	63	104

* In comparing the pupilage and cost of the schools for any year since 1877 with any year prior to 1878, the following facts should receive full consideration: In the reports issued prior to 1869, so also in the report for 1876, no care was taken to exclude duplicate enrollments; and, as a consequence, the number of different pupils represented in the schools for each of the years prior to 1869, as well as for the year 1876, is very erroneous. From certain data at hand, it is likely that the number given for each of the years in question is about 1,000 too large. It is perfectly evident, from the statistical tables in the reports for the years named, that duplicate enrollments were not excluded. As a result of the failure to exclude such enrollments, all pupils enrolled in any grade of school at the opening of the year and passing by promotion to a higher grade before the close of the year would be doubly reported. And as whole classes, substantially, from every grade in every part of the city become doubly enrolled at the time of the mid-year promotions, likewise most pupils who change their residence, it is readily seen how largely erroneous the reports must be that do not provide for the exclusion of all re-enrollments.

For many years this matter, and the importance of it, has been well understood; and its failure to receive attention in 1876 was doubtless accidental. See foot notes on page 51 of the Report for 1873, prepared by Superintendent Edgerly; likewise page 45 of the Report for 1875, prepared by Superintendent Dearborn; and, also, pages 50 and 51 of the Report for 1877. In consequence of the change mentioned in the last-named report, the only item of attendance records reported for the years prior to 1878 which can with reliability be compared with those reported since 1877 is the "Average Daily Attendance," and this item is evidently far from right (as given in the report) for 1866. Since 1877, all of the several items of attendance record have been based upon uniform data.

† Including grammar classes in suburban schools.

‡ Exclusive of special teachers.

CHANGES IN CORPS OF TEACHERS.

The whole number of different teachers employed one term or more in the day schools, within the year, has been 112. Their respective positions may be learned from the attendance tables on pages C, D, E, F, G, and H of the Appendix, but the various changes made within the year can be more readily understood by an inspection of the following:

Teachers.	Date of effect of resignation.	Teachers.	Date of beginning service.
Mary E. Bunton.	Mar. 23.	Eliza P. Dougherty.	April
Lillian Little.	Aug. 1.	Rosabelle M. Franklin.	Sept. 10.
Guy W. Cox.	" "	Harry N. McLaren.	" "
Edith L. Turner.	" "	Clydie M. Flanders.	" "
At Lowell-street school .	.	Mary A. Fay.	April 9.
At Lowell-street school .	.	Mabel M. Stevens.	Sept. 10.
At Bakersville school .	.	Cora M. Farmer.	" "
At Main-street school .	.	Hellen Morison.	" "
At Rimmon school .	.	Marcia M. Moore.	" "

TRAINING SCHOOL.

Sub-teachers.	Graduated.	Sub-teachers.	Entered.
Mary A. Fay.	Jan. 26, '94.	Mabel L. Howe,*	Jan. 29, '94.
Bertha L. Kemp.	" "	Amy K. Northrup.	" "
Nellie C. Parker.	" "	Lizabell Savory.	" "
Nellie M. Smith.	" "	Helen E. True.	" "
Cora M. Farmer.	June 22, '94.	Hattie S. Tuttle.	" "
Clydie M. Flanders.	" "	Hattie O. Willand.	" "
Emma B. Abbott.	Jan. 25, '95.	Florence L. Abbott.	Sept. 10, '94.
Lenora J. Clough.	" "	Blanche L. Bachelder.	" "
Marcia M. Moore.	" "	Maude L. Lamprey.	" "
Hellen Morison.	" "	Margaret C. Lane.	" "
Maud L. Smith.	" "	Harriet H. Richardson.	" "
Hattie S. Tuttle.	" "	Katie E. Bacheller.	Dec. 31, '94.
		Blanche E. Hicken.	" "
		Minnie M. Phillips.	" "
		Dora B. Tuson.	" "

* Withdrew, on account of poor health.

VI—Work of Truant Officer.

DATE.	Absentees reported from		No. voluntarily returned to		No. reported caused to attend		No. moved out of the city.	No. found sick and unable to attend.	No. otherwise unavoidably detained.	No. not found.
	City schools.	Parochial schools.	City schools.	Parochial schools.	City schools.	Parochial schools.				
January.....	37	33	13	2	24	14	2	5	10	..
February	28	24	2	1	16	15	2	13	13	..
March.....	34	15	7	2	8	10	4	11	7	..
April.....	50	25	2	3	17	21	2	6	24	..
May.....	53	27	6	1	31	21	1	6	14	..
June	19	17	3	2	6	13	4	6	2	..
September	74	6	5	6	32	8	7	2	10	10
October.....	57	7	4	2	32	13	4	5	4	..
November	81	31	3	11	33	18	5	14	19	8
December	25	8	..	2	4	6	3	7	7	4
Totals	158	193	45	32	203	139	34	75	100	22

DATE.	Truants not enrolled found on streets.	No. truants caused to attend		No. of school age found on streets in school hours.	No. of parents visited.	No. temporarily confined at the police station.	No. brought before the court.	No. employment certificates granted.
		City schools.	Parochial schools.					
January.....	40	24	16	109	85	.....	.....	38
February.....	23	10	13	81	62	.....	.....	26
March.....	.....	.....	.....	69	48	2	1	47
April.....	3	.....	3	52	94	1	.....	.....
May.....	4	4	.....	54	70	4	1	16
June.....	3	1	2	21	39	.....	.....	.....
September	59	25	34	156	94	2	.....	110
October	47	15	32	153	117	.....	1	26
November.....	21	8	13	184	136	2	.....	43
December	7	5	2	72	45	1	.....	49
Totals.....	207	92	115	951	790	12	3	355

VII.—Finances.—1894.

ITEMS OF ACCOUNT.	Resources from appropriations and transfers.	Expenditures, 1894 .
Salaries of teachers.....	\$63,151.03	\$63,151.03
Books and stationery.....	55.92	55.92
Free text-books and supplies.....	4,484.36	4,484.36
Furniture and supplies.....	58.69	58.69
Repairs.....	4,964.67	4,964.67
Care of rooms.....	4,449.15	4,449.15
Fuel.....	5,224.27	5,224.27
Printing and advertising.....	312.08	312.08
Contingent expenses.....	1,530.40	1,530.40
Evening common schools.....	935.61	935.61
Evening drawing schools.....	442.40	442.40
Manual Training.....	1,447.54	1,447.54
Totals.....	\$87,056.12	\$87,056.12

COST OF CITY SCHOOLS.*

Expenditures, as above specified . . . \$87,056.12

Salaries.

Members of the school board . . . \$200.00
 Clerk of the board . . . 200.00
 Superintendent of schools . . . 2,300.00
 Truant officer . . . 625.00

Total . . . \$90,381.12

Receipts on Account of Schools.

Literary fund . . . \$7,252.97
 Non-resident tuition . . . 483.65
 Sale of text-books . . . 229.79

Total . . . \$7,966.41

Net amount raised by taxation . . . \$82,414.71

* See foot-note marked * on page J of this appendix.

The city valuation for 1894 is \$28,391,710; and hence the rate of school tax for the year is $\$82,414.71 \div \$28,391,710$, or .00290 +. Last year the rate was .00220 +.

VIII.—School Year.

Winter term of twelve weeks opened January 1; closed March 23. Vacation of two weeks.

Spring term of eleven weeks opened April 9; closed June 22. Vacation of eleven weeks.

Fall term of fourteen weeks opened September 10; closed December 14. Vacation of two weeks.

Number of school days in the year, as provided above by the school board, 185.

Average number of days the schools were taught, 175.

(Being closed several holidays, days of "Teachers' Institutes," and half days on account of bad weather or insufficient heat.)

IX.—High School Graduation.

PROGRAM.

"Gipsy Chorus," from "Bohemian Girl" . . . *Balfe*

The Class of '94.

Salutatory, with Essay, "Economy of Time"

Bertha Mae Pattee

"Graduation Galop". . . . *Charles G. Dunnington*

'94 Banjo Club.

Ralph W. Fracker. Fred Addison Foster.

Charles G. Dunnington. Frederick Erskine McLaren.

Argyle Thomas Johnson. Walter Taylor Sumner.

Class History Theodosia Grant Sargeant

Fantasie for Violin *H. Leonara*

George Albert Fracker.

Accompaniment by Miss Mamie Fitts, class pianist.

Class Poem, "The Rivalry of Ajax and Ulysses"

Anson G. Osgood

(N)

Chorus, "Anchored" *M. Watson*

Class of '94.

With solos by Mr. Foster and Miss Bertha Pearl Palmer.

Class Prophecy Robert Philbrick Johnston

Pianoforte Solo, Caprice, "Recollections of Home" . . . *Mills*

Walter Taylor Sumner.

Class Oration, "The Progress of Education"

William Alfred Phinney

Duet for Banjos *Klange*

Messrs. Dunnington and Johnson.

Valedictory, with Essay, "Self Reliance"

Clinton Harvey Currier

Chorus, "The Red Scarf" *Theo. Bonheur*

The Class, with solo by Mr. Sumner.

Award of Diplomas Rev. T. Eaton Clapp

Class Ode.

GRADUATES.

CLASS OF '94.

Arthur Jackson^{*}Abbott.

Harry B. Marshall.

Florence Abbott.

Oriola Eleanor Martin.

Katie E. Batchelder.

Belle McCrillis.

Irving Bodwell.

Fred Erskine McLaren.

Eugene Freeman Clough.

Myra Moore.

Bessie Allan Cochran.

Anson G. Osgood.

Clinton Harvey Currier.

Bertha Pearl Palmer.

Grace Evangeline Downer.

Bertha Mae Pattee.

Ella Mabel Dowst.

Grace Mabel Perkins.

Charles G. Dunnington.

Grace Alice Phillips.

Helen Maud Eddy.

William Alfred Phinney.

Raymond L. Everett.

Franklin Pierce Plummer.

E. Irving Farrington.

Benjamin Price.

Isaac Byron Fellows.

Florence Richardson.

James Briggs Fitch.

Charles Augustus Robie.

Mamie Fitts.

Mabel Florence Robinson.

(O)

Bernice Neil Fletcher.	Ernest Clinton Rowell.
Blanche May Folsom.	Theodosia Grant Sargeant.
Mae Belle Ford.	Clinton Homer Scovell.
Fred Addison Foster.	Woodbury John Scribner.
George Albert Fracker.	Maggie Shay.
Ralph W. Fracker.	Frank Herman Shilvock.
Maude Margaret Greaney.	Mark Herbert Simpkins.
Amy Florence Heath.	Natt Head Smith.
Mary Lydia Heath.	Walter Taylor Sumner.
Etta Blanche Holt.	Dora Belle Tuson.
Eva Ellen Jackson.	Lula Agnes Wasley.
Argyle Thomas Johnson.	Herbert Leslie Watson.
Robert Philbrick Johnston.	George Clarence Wilkins.
Lena Marston Josselyn.	Almond DeForest Woodman.
Edwin Scott Lane.	Annie Morrill Vose.
Alice Gertrude Lovering.	

HONOR SCHOLARS.

Classical Course	. . . .	Clinton Harvey Currier
College Course	. . . .	Theodosia Grant Sargeant
Four Years' English Course	. . . .	Maggie Shay
Three Years' English Course	. . . .	Bertha Mae Pattee
Scientific Course	. . . .	E. Irving Farrington

X. — Winners of Clarke Prizes.

FOR EXCELLENCE IN ELOCUTION AT CONTEST, JANUARY 26, 1894.

Maud M. Davis, \$16.	Anson G. Osgood, \$6.
Lynn B. Hammond, \$14.	Grace L. Morrison, \$4.
Mamie A. Murphy, \$10.	Emily M. Corey, \$2.
Gladys M. Baker, \$8.	

(P)

XI. — Organization, 1895.

SCHOOL COMMITTEE.

WILLIAM C. CLARKE, MAYOR, 711 Pine street,
Chairman *ex officio*.

JOHN T. GOTT, Mammoth road,
President of Common Council, *ex officio*.

- Ward 1. Walter H. Lewis, 32 Stark.
Walter B. Heath, 17 Stark.
- Ward 2. Charles H. Manning, 1838 Elm.
Augustus P. Horne, 62 Liberty.
- Ward 3. George D. Towne, 170 Lowell.
Louis E. Phelps, 103 Walnut.
- Ward 4. Nathaniel L. Colby, 348 Manchester.
Charles M. Floyd, 324 Hanover.
- Ward 5. James P. Slattery, 217 Central.
William J. Sughrue, 61 Spruce.
- Ward 6. Harry I. Dodge, Goffe's Falls.
Herbert E. Richardson, 382 Central.
- Ward 7. Marshall P. Hall, 26 Market.
Edward B. Woodbury, 1 Pleasant.
- Ward 8. Luther C. Baldwin, 157 Milford.
Josiah G. Dearborn, 157 Milford.
- Ward 9. R. Emmet Walsh, 166 Main.
Jeremiah J. Sullivan, 35 Amory.

VICE-CHAIRMAN OF THE BOARD.

MARSHALL P. HALL.

CLERK OF THE BOARD.

EDWARD B. WOODBURY.

SUPERINTENDENT OF PUBLIC INSTRUCTION.

WILLIAM E. BUCK.

(Q)

SUPERINTENDENT'S CLERK.

FANNIE L. SANBORN.

TRUANT OFFICER.

CURTIS W. DAVIS.

STANDING COMMITTEES.

Finance. Mayor Clarke and Messrs. Gott, Hall, Woodbury, and Richardson.

Salaries. Messrs. Woodbury, Slattery, Heath.

Text-Books. Messrs. Hall, Baldwin, and Dearborn.

Music. Messrs. Lewis, Phelps, Walsh.

Drawing. Messrs. Baldwin, Hall, Slattery.

Manual Training. Messrs. Hall, Baldwin, Floyd.

Examination of Teachers. Messrs. Towne, Dearborn, Colby.

Fuel and Heating. Mr. Phelps, Mayor Clarke, Messrs. Gott, Manning, Horne.

Repairs. Messrs. Manning, Baldwin, Phelps.

Attendance. Messrs. Sughrue, Lewis, Richardson.

Health. Messrs. Towne, Dodge, Sullivan.

SUB-COMMITTEES.

High School. Messrs. Manning, Hall, Towne, Phelps, Slattery, Dearborn, Baldwin.

Franklin-street. Messrs. Woodbury, Lewis, Richardson.

Spring-street and Lowell-street. Messrs. Lewis, Slattery, Horne.

Lincoln-street. Messrs. Floyd, Colby, Woodbury.

Ash-street and Pearl-street. Messrs. Phelps, Towne, Hall.

Webster-street and Blodget-street. Messrs. Towne, Manning, Horne.

Bakersville. Messrs. Slattery, Richardson, Dodge.

Varney School. Messrs. Baldwin, Dearborn, Colby.

Training School. Messrs. Hall, Phelps, Baldwin.

Wilson Hill School. Messrs. Sughrue, Floyd, Sullivan.

Main-street and South Main-street. Messrs. Dearborn, Sullivan, Lewis.

Rimmon School. Messrs. Horne, Walsh, Heath.

Amoskeag and Stark District. Messrs. Heath, Slattery, Walsh.

Hallsville and Youngsville. Messrs. Richardson, Sughrue, Floyd.

Goffe's Falls and Harvey District. Messrs. Dodge, Sughrue, Heath.

Webster's Mills and Mosquito Pond. Messrs. Walsh, Dodge, Sullivan.

Evening Schools. Messrs. Colby, Manning, Woodbury.

XII.—List of Teachers.

HIGH SCHOOL.—BEECH STREET.

Master. Albert Somes.

Sub-Master. George I. Hopkins.

Assistants. Harry N. McLaren.

Mary Stanton.

Nellie Pickering.

Mary H. Cutler.

Camille Benson.

Theresa B. Stanton.

FRANKLIN-STREET SCHOOL.

Second Floor.—Grammar Grades.

Master. Charles W. Bickford.

Master's Assistant. Nellie M. Smith.

Assistants. Carrie E. Hoit.

L. May Choate.

Carrie E. Head.

(S)

First Floor.— Lower Grades.

Higher Middle. Nellie C. Parker.
 Lower Middle. Hattie G. Flanders.
 Higher Primary. Nellie M. James.
 Lower Primary. Susie L. Dodge.

SPRING-STREET SCHOOL.

Second Floor.— Mixed Grades.

Principal. Lizzie P. Gove. (Fourth Division.)
 Higher Middle. Emma L. McLaren.

First Floor.— Lower Grades.

Lower Middle. Fannie D. Moulton.
 Higher Primary. Nellie I. Sanderson.
 Lower Primary. Maud L. Smith.
 Lower Primary. Florence M. Griffin.

LINCOLN-STREET SCHOOL.

Second Floor.— Grammar Grades.

Master. Frank S. Sutcliffe.
 Master's Assistant. Annie W. Patten.
 Assistants. Isabelle R. Daniels.
 Mabel J. Brickett.
 Mary F. Barnes.
 Mary J. Corcoran.*
 Josephine A. Mitchell.*

First Floor.— Lower Grades.

Higher Middle. Nettie B. Fogg.
 Lower Middle. Issa May Tuttle.
 Higher Primary. Cora B. Gilford.
 Mixed Primary. Theodora Richardson.

* Third floor.

ASH-STREET SCHOOL.

Second Floor.— Grammar Grades.

Master. Albert F. King.
Master's Assistant. Mary Hickey Dowd.
Assistants. Eliza P. Dougherty.
Mabel Ruth Brown.
Edith S. Dole.

First Floor.— Lower Graaes.

Higher Middle. Emma J. Cooper.
Lower Middle. Kittie J. Ferren.
Higher Primary. May F. Nutt.
Lower Primary. Bertha A. Young.

WEBSTER-STREET SCHOOL.

Second Floor.— Grammar Grades.

Master. B. S. Andrew.
Master's Assistant. Abbie E. Wilson.
Assistants. Helen E. Frost.
Alta C. Willand.

First Floor.— Lower Grades.

Higher Middle. Eva F. Tuson.
Lower Middle. Edith L. Hammond.
Higher Primary. Jean Gillan.
Lower Primary. Mary E. Murphy.

BAKERSVILLE SCHOOL.

Second Floor.—Mixed Grades.

Principal. Lizzie A. Burns. (Grammar Grades.)
Assistant.* Lelia A. Brooks.
Mixed Middle.* Cora M. Farmer.
Higher Primary. Augusta S. Downs.

* Third floor.

First Floor.—Lower Grades.

Lower Primary. S. Izetta Locke.
Lower Primary. Annie Brigham.

VARNEY SCHOOL.

Second Floor.—Grammar Grades.

Master. George Winch.
Master's Assistant. Barbara B. Joy.
Assistant. Rosabelle M. Franklin.

First Floor.—Mixed Grades.

Assistants. E. Maria Dickey.
Ellen E. McKean.
Millie S. Morse.
Higher Middle. Mary E. Moulton.
Lower Middle. Mary A. Seavey.
Higher Primary. Mary J. Walsh.

HALLSVILLE SCHOOL.

Second Floor.—Mixed Grades.

Master. William H. Huse.
Master's Assistant. Ella F. Barker.
Assistant. Olive A. Rowe.
Higher Middle. Susie G. Woodman.

First Floor.—Lower Grades.

Lower Middle. Mary L. Ayer.
Higher Primary. Bertha L. Kemp.
Lower Primary. E. Alfreda Hall.
Lower Primary. Annie R. Corson.

RIMMON SCHOOL.

Second Floor.

Principal. Mary E. Brophy. (Grammar Grades.)
Mixed Middle. Marcia M. Moore.

First Floor.

Higher Primary. Lenora J. Clough.
Lower Primary. Emma B. Abbott.

TRAINING SCHOOL.

(Merrimack street, corner Union.)

Principal. Caroline E. Wing.
Head Assistant. Annie W. Cofran.

The principal is also assisted by the sub-teachers, i. e., members of the training class. The school embraces the first four years of school work, in the following grades: Lower Primary, Higher Primary, and Lower Middle. There are four rooms, two of lower-primary grade.

MAIN-STREET SCHOOL.

Second Floor.—Mixed Grades.

Principal. Mary W. Mitchell.
Lower Middle. Gertrude A. Burns.
Higher Primary. Hellen Morison.
Higher Primary. Lottie M. Clement.

First Floor.—Primary Grades.

Higher Primary. Mary A. Clement.
Lower Primary. M. Minnie Sturtevant.
Lower Primary. Kate T. Clarke.
Lower Primary. Gertrude L. Southard.

(W)

BLODGET-STREET SCHOOL.

Second Floor.

Higher Primary. Gertrude H. Brooks.

First Floor.

Lower Primary. Edith M. Stebbins.

LOWELL-STREET SCHOOL.

Second Floor.

Lower Primary. Mary S. Richardson.

Lower Primary. Mabel M. Stevens.

First Floor.

Higher Primary. Helen M. Morrill.

PEARL-STREET SCHOOL.

Higher Primary. Mary G. Tynan.

Lower Primary. M. Clara Hawks.

WILSON HILL SCHOOL.

Lower Primary. Huldah C. Graupner.

Lower Primary. Ella Hope.

SOUTH MAIN-STREET SCHOOL.

Lower Primary. Delle E. Haines.

Lower Primary. Georgia M. Cheney.

PARTIALLY GRADED SCHOOLS.

AMOSKEAG. Lettie M. Smith.

Mixed Primary. Clydie M. Flanders.

GOFFE'S FALLS.* Georgie Kendrick.

Mixed Primary. Bessie E. Dodge.

* Suburban.

UNGRADED SCHOOLS.*

- No. 1. Stark. Inez M. Warren.
 2. Harvey. Emma J. Ela.
 3. Youngsville. Louis H. Bailey.
 4. Webster's Mills. Josephine L. Riddle.
 5. Mosquito Pond. Nellie M. Atwood.

SPECIAL TEACHERS.

Music. J. J. Kimball.
 Drawing. Charlotte J. Emmins.
 Manual Training. Fred E. Browne.

EVENING SCHOOLS.

(Open from October to March, five evenings each week.)

City Hall Building.

One school for boys.

Spring-Street Building.

Two schools for girls.

School-Street Building.

Two schools, one for each sex.

Rimmon School.

Two schools, one for each sex.

EVENING DRAWING SCHOOL.

(Open from October to March.)

Spring-Street Building.

Machine-drawing classes meet on Monday and Thursday evenings.

Architectural-drawing classes meet on Tuesday and Friday evenings.

* Suburban.

JANITORS.

High School and Ash-Street School.

John S. Avery.

Lincoln-Street and Wilson Hill Schools.

William Stevens.

Webster-Street and Blodget-Street Schools.

Charles F. Jack.

Spring-Street and Lowell-Street Schools.

William H. Morrill.

Training School and Franklin-Street School.

Edward P. Cogswell.

Varney and South Main-Street School.

H. G. Batchelder.

Main-Street and Rimmon Schools.

William F. Conner.

Bakersville School.

H. C. Dickey.

Hallsville and Pearl-Street Schools.

William H. Newry.

Amoskeag School.

James E. Bailey.

XIII.—School Year, 1895.

Winter term of twelve weeks opens December 31, 1894, closes March 22, 1895. Vacation of two weeks.

Spring term of eleven weeks opens April 8, closes June 21. Vacation of eleven weeks.

Fall term of fourteen weeks opens September 9, closes December 13.

MANCHESTER HIGH SCHOOL COURSE OF STUDY. MODIFIED 1894.

ENGLISH DIVISION. 3 or 4 Years. *	CLASSICAL DIVISION. 4 Years. ENGLISH AND LATIN, WITH FRENCH IF DESIRED.	COLL. PREPARATORY 5 Years. || ENGLISH, LATIN, GREEK, AND FRENCH.	SCIENTIFIC PREPARATORY. 3 Years. ENGLISH AND FRENCH.
ENGLISH, WITH FRENCH IF DESIRED.	FIRST YEAR.—FALL TERM.		
Algebra. Advanced English Grammar. Physics.	Algebra. Latin. Physics.	Same as the Classical Division.	Same as the English Division.
Algebra. English Grammar, completed. Physics.	WINTER TERM.		
	Algebra. Latin. Physics.	Same as the Classical Division.	Same as the English Division.
	SPRING TERM.		
Algebra. Composition. Physics.	Algebra. Latin. Physics.	Same as the Classical Division.	Same as the English Division.
Geometry.* Rhetoric. † Physiology.	SECOND YEAR.—FALL TERM.		
	Geometry. Latin. Physiology.	Geometry. Latin. Greek.	Geometry. Rhetoric. † French.
Geometry. General History. Civil Government.	WINTER TERM.		
	Geometry. Latin. Civil Government.	Geometry. Latin. Greek.	Geometry. General History. French.
Geometry. General History. Botany. †	SPRING TERM.		
	Geometry. Latin. Botany. †	Geometry. Latin. Greek.	Geometry. General History. French.
English History. Commercial Arithmetic. } Chemistry. } the place of either.	THIRD YEAR.—FALL TERM.		
	English History. } History. } Chemistry } the place of either.	His. and Geog. of Rome. Latin. Greek.	Algebra rev. English History. French.

WINTER TERM.			FIFTH YEAR. COLLEGE COURSE.
English Authors. Book-keeping } French may take and Arithmetic. } the place of either. Chemistry.	General History. } Chemistry. }	Latin. His. of Rome and Greece. Latin. Greek.	
SPRING TERM.			FIFTH YEAR. COLLEGE COURSE.
English Authors. Book-keeping } French may take and Arithmetic. } the place of either. Chemistry.	General History. } Chemistry. }	Latin. His. and Geog. of Greece. Latin. Greek.	
FOURTH YEAR.—FALL TERM.			FIFTH YEAR. COLLEGE COURSE.
Algebra rev. Eng. Grammar rev. } Astronomy. } Three studies in English, or French may take the place of one of them.	Rhetoric. French may take the place of Astronomy. } either.	Algebra rev. || Latin. Greek.	
WINTER TERM.			FIFTH YEAR. COLLEGE COURSE.
Trigonometry, or Arithmetic rev. Mental Science. Physical Geog.	English Authors. Trigonometry, } French may or Arith. rev. } take the place Physical Geog. } of either.	Arithmetic rev. Latin. Greek.	
SPRING TERM.			FIFTH YEAR. COLLEGE COURSE.
Surveying, or Geometry rev. Mental Science. Mineralogy and Geology. †	English Authors. Surveying, } French may or Geometry rev. } take place Mineralogy } of either. and Geology. †	Geometry rev. Latin. Greek. (FIFTH YEAR, NEXT COL.)	

A DECLAMATION OR AN ESSAY (ALTERNATING) IS REQUIRED OF EACH PUPIL EVERY TWO WEEKS THROUGHOUT THE COURSE.

- * Pupils in the English Division, who expect to withdraw at the end of the second year, may, if they so elect, take the mathematics of the third year in place of geometry; and upon withdrawing at the end of the second year each will receive a certificate of proficiency in the English Division.
- † This study is especially the advantage of those who cannot attend the school more than two years.
- ‡ "Studies in English" once a week next three terms, to connect the study of Grammar and Rhetoric with the work to be done in English Authors.
- § Botany, Mineralogy, and Geology given special local application.
- ¶ French, ought not to be taken by those intending to leave school before the close of the fourth year.
- § Examinations in mathematics for admission to Harvard College can be taken a year before entrance; and pupils designing to enter other colleges may take the English studies of the fifth year as extras during the fourth year, if they so elect and are deemed capable, *in order to omit the fifth year preparatory.*
- ¶ Latin and Greek alternate weekly throughout the fifth year.

REPORT
OF THE
CHIEF ENGINEER OF FIRE DEPARTMENT.

REPORT

OF THE

CHIEF ENGINEER OF FIRE DEPARTMENT.

ENGINEER'S OFFICE, NO. 8 VINE STREET,

MANCHESTER, N. H., Dec. 31, 1894.

To His Honor the Mayor and Gentlemen of the City Councils :

In compliance with section 5, chapter 12 of the Laws and Ordinances of the city, I herewith submit my sixteenth annual report (it being the forty-ninth of this department) for the year ending December 31, 1894, together with a statement of the alarms and fires that have been attended to by portions of the department and cause of the fires as far as could be ascertained, with the value of property endangered, the amount of insurance carried, the loss, and the amount of insurance paid.

It has been difficult in some cases to get the value of property endangered, the owners refusing to give such information as will enable me to make the returns to the insurance commissioner of the state as he desires.

The report will also contain a complete list of the working force of the department, giving their rank, occupation, residence, etc., a list of the fire-alarm stations and location of keys to the same, etc., and right here let me urge upon the property holders and residents the necessity of informing themselves of the location of the fire-alarm box nearest their residence or place of business, and where the keys are kept,—all of which can be learned by consulting this report on some of the following pages.

No fire has occurred during the year that has required the entire force of the department to extinguish, and the second alarm has been pulled only twice.

There have been 65 bell alarms, two of which were second alarms for same fires, and 71 "stills," making a total of 136, the largest number recorded in any year.

The property endangered (not including the alarms where no damage has been done), as far as could be ascertained, is valued at \$390,673.52; insurance has been carried on same to the amount of \$213,511.25; the losses, as adjusted, have been \$42,581.15, and there has been paid insurance \$32,312.71, leaving a net loss, uncovered by insurance, of \$11,268.44.

THE MANUAL FORCE

consists of one hundred and forty-five men, of whom twenty-eight are on permanent duty and one hundred and seventeen are "on call," divided into companies, as follows:

- 1 chief engineer.
 - 4 assistant engineers — call.
 - 4 steamer companies of 14 men each — 11 permanent and 45 call — 56.
 - 2 steamer and truck companies, 20 men each — 9 permanent, 31 call — 40.
 - 1 aerial truck company, 15 men — 3 permanent and 12 call — 15.
 - 2 hose companies of 12 men each — 2 permanent and 22 call — 24.
 - 1 chemical, 5 men — 2 permanent and 3 call — 5 — one of whom is detailed as driver of supply wagon.
- Making a total of 145 men.

THE BUILDINGS.

The new hosehouse in Bakersville is *said* to be completed, at least it has been accepted as such, and yet before it can be used to any advantage, and without risk of injury to horses, the stalls

should be set over and the entire stable be remodeled. The lattice-work in the hose tower should be removed and closed up so that in cold weather heat can be let into it to dry the hose and prevent its freezing while hanging there to dry. The cellar should also be cemented or concreted.

I would recommend the putting in of double doors in place of single ones in front of the horses at Engine No. 6 station in McGregorville; also the building of some shelter for the exercise wagon, which has been out doors, exposed to all kinds of weather, so that the cost of repairs necessitated by such exposure would more than compensate for the shed asked for after the wagon went into service.

A suitable shed ought to be built at station of Engine No. 5, on Webster street, for housing of carts and sleds.

The station of Engine No. 2 should be painted outside and eavespouts put on to prevent the water from the roof running into the cellar, thus causing a dampness to the house nearly the entire season. A coat of varnish and some papering at this station would be beneficial.

The roof of the Central station ought to have a thorough renovation. It leaks in many places and has been continually "patched" for years, and I think it economy to relay the gravel.

The station of Engine-and-Ladder No. 3 ought to be varnished in the apparatus room and some of the rooms upstairs papered.

THE APPARATUS

In actual service consists of 6 Amoskeag steam fire-engines, 3 hose wagons, 3 hose carriages, 1 aerial truck (with ladders), 2 ladder trucks, 1 Chemical engine, 1 old steam fire-engine, out of service, 2 hose carriages in the outlying districts (without companies), 1 supply wagon and 4 exercise wagons, which are located as follows:

2 steam fire-engines, with three-horse hitch, at Central station, each with one-horse hose wagon attached.

1 steam fire-engine, three-horse hitch, with 1 two-horse hose wagon, North Main street.

1 steam fire-engine and 1 one-horse hose carriage, at corner Lake avenue and Massabesic street.

1 two-horse ladder truck at same station.

1 steam fire-engine and two-horse hose carriage (with hook-and-ladder combination) at corner of Webster and Chestnut streets.

1 steam fire-engine and one-horse hose carriage, on Rimmon street, corner of Amory street.

1 two-horse ladder truck at same station.

1 one-horse hose carriage at Central station.

1 one-horse hose carriage, corner Maple and East High streets.

1 aerial hook-and-ladder truck at Central station (three-horse hitch).

1 double tank (60 gallons each) chemical engine at Central station.

1 supply wagon at Central fire station.

1 steam fire-engine (reserve) at old engine-house, Clinton street, of but little use for fire purposes.

4 exercise wagons, one at Central fire station, one at Engine No. 2, one at Engine and Ladder No. 3, one at Engine and Ladder No. 6.

1 hand hose carriage at junction of Old Falls road and Front street, Amoskeag.

1 two-wheeled hose carriage, Devonshire Mills, Goffe's Falls.

THE HORSES.

There are at present thirty-eight horses owned by this department, two of which, although condemned as unfit for service, have been on duty most of the time during the fall and winter, owing to the inability of some of the recently purchased ones to perform the duty required of them.

During the past two years it has been *pretended* that all horses purchased were on trial before a sale was made, which in a measure was a perfect farce, for whenever the "dictator of the com-

nittee" saw fit, he approved the bills, and in two or three instances the horses were paid for before he took the trouble to find out whether they were in any way suited for the positions required, and the last pair was paid for before they ever saw a day of fire duty, and even after one of them was reported wholly unfit, being incapacitated by a weakness on account of which he will never be able to fill the requirements of a fire department. With such methods of doing business we have paid pretty good prices for some pretty *poor horses* during the past year.

The excitement of a three-horse-hitch seemed too much for the gray horse "Prince" of Ladder Truck No. 1, and we are trying him singly on the hose wagon of Engine No. 4, and he appears to do better in this position. This necessitates the purchase of another horse for Ladder No. 1.

Two horses have died during the year,— "Stub," for a number of years attached to Engine No. 4, but recently of Truck No. 6, died of inflammation March 2. There was an insurance of \$100. April 27 the black horse "Frank," of Engine No. 3, died. He was insured for \$200. The insurance has been received by the city, and the amount should be credited to the account of this department.

April 21 a pair of bay horses was purchased for Truck No. 6 for \$400, and September 5 a pair of blacks was purchased for the Chemical engine. This pair was purchased under protest of the chief engineer, as being unfit for fire service, and the oft-repeated trials of them has fully verified the fact that they were.

This is another evidence of where the department has to take the blame of the cranky whims of committees.

THE FIRE-ALARM TELEGRAPH

has rendered efficient service during the past year, and has been increased by the addition of two fire-alarm boxes,— No. 261 at the new grammar school on Pearl street, and No. 323 at the corner of Putnam and Bartlett streets. We have set 26 poles, 2 box poles, reset 16 old poles, put up 105 two-pin arms, 5 four-pin arms, 27 single extensions, 25 two-pin extensions, 2 four-pin ex-

tensions, changed 18 tappers and put in 21 tappers, mended 18 breaks on main line, and 12 on tapper lines. There are about thirty-five miles of main line wire and thirty-two miles of tapper lines, requiring four hundred and twenty jars of gravity battery.

THE FIFTEENTH ANNUAL PARADE.

No appropriation having been made by the city councils for an annual parade, the fifteenth was held during "Merchants' Week," Tuesday, October 9, the expenses being defrayed mostly by Acting Mayor Worthen and the Board of Trade, and partly by individual contributions from members of the department.

THE FIREMEN'S RELIEF ASSOCIATION.

More calls have been made upon this association during the past year than during any year of its existence, owing to an unusual number of accidents; but by the liberality of our citizens the amount in the treasury has not been reduced from last year's balance. The following is the financial standing:

Receipts.

Balance in treasury	February 13, 1894	.	\$3,493.02
Received for membership	.	.	21.00
from dividends on deposits	.	.	209.21
donations, William F. Hubbard			25.00
Peter Riley	.	.	20.00
J. B. McCrillis & Son			25.00
Brown, Straw & Brown	.	.	25.00
Major Lewis Simons			5.00
N. H. Insurance Co.			50.00
Chandler Bros.	.	.	10.00
Rt. Rev. Bishop Bradley	.	.	10.00
A. P. Olzendam & Sons	.	.	25.00
Frank W. Leeman	.	.	15.00
<hr/>			\$3,933.23

Expenditures.

Paid Julian B. Huntley, injuries at fire .	\$7.00	
Thomas J. Wyatt	44.00	
George Dunnington	21.50	
Artemas C. Barker	14.00	
Alphonzo E. Foster	46.00	
Walter L. Blenus	61.00	
Charles Edgar	65.50	
Samuel W. Patten	36.00	
Clarence R. Merrill	61.00	
Joseph R. Merrill, secretary's salary	25.00	
	<hr/>	\$381.00
Leaving a balance in the treasury of . .		<hr/> \$3,552.23

CONCLUSION.

We have had no extensive conflagrations during the past year, although the fire at Nos. 37-43 Manchester street, October 2, came near proving serious to some of our firemen and police officers. In the early stages of the fire a hot-air explosion occurred, throwing three firemen and one police officer down a flight of stairs, burning them severely about the hands and face, although all have recovered without any serious results.

This demonstrates the fact that something ought to be done by our city councils for the relief of our "call members" who are injured in the performance of their duties.

I would renew my recommendation of last year for a double-tank Chemical engine to be placed in the station of Engine No. 2 on the West Side. Of the four exercise wagons asked for last year, two were furnished and placed with Engine and Ladder companies Nos. 3 and 6. I would recommend that two more be purchased for the use of Engine No. 5 and Hose No. 2.

I desire again to present the needs of more ladder service, particularly in the northern and northeastern sections of the city, and urgently recommend the purchase of a light truck similar to Ladder No. 6 of McGregorville.

I hope the incoming city government will favorably consider my recommendation of last year to increase the salary paid the assistant engineers.

In closing, I wish to express my thanks to His Honor Mayor Knowlton, Acting Mayor Worthen, members of the city councils, Chief of Police Healy and his officers for their co-operation at fires, to the assistant engineers, and last but not least to "the backbone" of the department, the officers and men each and every one, for their faithful performance of their duties.

Respectfully submitted.

THOMAS W. LANE,
Chief of Fire Department.

List of Fires and Alarms Responded to During 1894, with Losses and Insurance.

STILL. Wednesday, January 3, 8 A. M. Burning chimney in house of ex-Gov. James A. Weston, 621 Maple street. Responded with pony. No damage.

STILL. Saturday, January 6, 7 A. M. Burning chimney in house of Michael Lane, 23 Washington street. Responded with pony. No damage.

BOX 321. Wednesday, January 10, 9.57 A. M. St. Mary's School, Wayne street, McGregorville. Gasoline stove explosion. Extinguished by Brothers in charge of school, before the arrival of the department. Damage slight. Companies responding: Engines 2, 4, and 6, Hose 1, Trucks 1 and 6. Box pulled by citizen.

STILL. Friday, January 12, 6.45 P. M. Burning chimney at 44 Church street. Responded with pony. No damage.

STILL. Friday, January 12, 8.27 P. M. Burning chimney at 61 Amherst street. No damage.

STILL. Friday, January 12, 11.30 P. M. A telephone message received that a chimney was burning in room 29, Webster block. No fire was discovered.

STILL. Saturday, January 13, 5.30 P. M. Burning chimney at 13 Pearl street. Responded with pony. No damage.

BOX 4. Saturday, January 20, 11.18 P. M. Three-story wooden building at 671 Elm street, owned by Almer D. Gooden, and occupied by William Goldman as a clothing store. The fire originated on a table from some unknown cause and was extinguished by Chemical engine. Damage to building, \$1.25; insurance, \$1,500; insurance paid, \$1.25. Damage to contents, \$525; insurance, \$6,250; insurance paid, \$525. Companies responding: Engines 3 and 4, Hose 1, Truck 1, and Chemical 1. Box pulled by citizen.

STILL. Monday, January 22, 7.30 P. M. Burning chimney at 246 Douglas street. Block owned by Frank P. Johnson, and occupied by several families. Members of Engine 2 responded. No damage.

STILL. Tuesday, January 23, 5.15 P. M. Two-story tenement at 73 Amherst street, owned by Michael McCabe, and occupied by William Vallé. The fire originated in a closet from some unknown cause. Responded with Chemical and pony. Damage to building, \$25; no insurance. Damage to contents, \$35; no insurance.

BOX 82. Thursday, January 25, 4.27 A. M. Three-story brick house at 78 Lowell street, owned by A. H. Weston, and occupied by Mrs. Phineas Sears, as a boarding house. The fire originated in a closet on the first floor, from some unknown cause. Damage to building, \$100; insurance, \$1,500; insurance paid, \$100. Damage to contents, \$62; insurance, \$600; insurance paid, \$50. Companies responding: Engines 1, 4, and 5, Hose 1 and 2, Truck 1, and Chemical. Box pulled by citizen.

BOX 4. Thursday, January 25, 6.11 A. M. Burning chimney at corner of Elm and Auburn streets. No damage. Companies responding: Engines 3 and 4, Hose 1, Truck 1, and Chemical 1. Needless alarm. Box pulled by citizen.

STILL. Saturday, January 27, 9.15 P. M. Two-and-one-half-story four-tenement block at 211 Pine street. Overturning of kerosene lamp caused slight damage. Chemical engine called. Extinguished before arrival of engine.

STILL. Sunday, January 28, 4.10 P. M. Too much smoke from a well-filled stove caused an alarm among the Salvation Army from under their barracks on Spring street. Chemical responded, but services not needed.

STILL. Monday, January 29, 11.15 P. M. Burning chimney at 24 Whitney street. Responded with pony. No damage.

STILL. Saturday, February 10, 10.27 A. M. Two-and-one-half-story house, 85 Amherst street, owned by Lawrence Dowd, and occupied by John Fitzgerald. The fire originated from defective flue. Responded with pony.

STILL. Wednesday, February 14, 8.05 A. M. Burning chimney in Towne's block, corner Elm and Amherst streets. Responded with pony. No damage.

STILL. Saturday, February 24, 4.17 P. M. Burning chimney at 129 Manchester street. Responded with pony. No damage.

BOX 71. Saturday, February 24, 4.43 P. M. Burning chimney at 112 Auburn street. No damage. Companies responding: Engines 1 and 3, Hose 1, Truck 3, and Chemical. Box pulled by citizen.

STILL. Tuesday, February 27, 5.25 A. M. Burning chimney at rear of 22 Wayne street. No damage. Responded to by detail from Engine 6. Used pony.

BOX 4. Sunday, March 4, 4.52 A. M. Four-story brick block, 621 Elm street, owned by Daniel Connor, and occupied by Wm. McPherson as a saloon and cafe. The fire originated in a wooden spittoon filled with sawdust. It burned through the floor into the cellar, doing no damage to cellar but burning the bar and fixtures. Damage to building, \$50; no insurance. Damage to contents, \$175; insurance, \$300; insurance paid, \$125. Companies responding: Engines 3 and 4, Hose 1, Trucks 1 and 3, and Chemical. Box pulled by citizen.

BOX 212. Monday, March 5, 11.53 P. M. Cottage house in process of erection on Jewett street, belonging to John McTier-nan. The fire started from some unknown cause near a pile of finish boards on first floor. There was a builders' insurance of \$500. Damage, \$132.75; insurance paid, \$132.75.

STILL. Thursday, March 15, 9.10 P. M. Burning chimney at 51 Hanover street in brick block owned by Johnson heirs. No damage. Responded with pony.

Box 213. Tuesday, March 20, 2.10 P. M. A story-and-half L on Silver street, owned by J. V. Kelley of Derry, and occupied by Gustave Billett. The fire originated from burning grass in rear of the house. The shed was nearly consumed and the upper story of the house badly used up. Damage to building, \$100; insurance, \$200; insurance paid, \$100. Damage to contents, \$20; no insurance. Box pulled by citizen.

STILL. Wednesday, March 21, 11.30 A. M. Fire on roof of city farm dwelling. Caught from sparks from chimney and small hole burned through the boards and shingles. Damage to buildings, \$4.50; insurance, \$900. No damage to contents. Chemical engine responded, but fire was extinguished before its arrival.

STILL. Monday, March 26, 11.20 A. M. Three-story wooden tenement block at 102 McGregor street, owned by Ed. M. James, and occupied by Mr. Frank Parrott as a saloon. The fire was caused by a defective chimney. Damage to building, \$25; insurance, \$6,000; insurance paid, \$25. No damage to contents. Members of Engine 6 responded with hose carriage. Extinguished with pony.

STILL. Tuesday, March 27, 9.15 A. M. Burning chimney at 123 Hanover street. No damage. Used pony.

Box 5. Wednesday, March 28, 9.54 A. M. Three-story wooden block, 9, 11, and 13 Central street, owned by John Sweeney, and occupied by William McLaughlin in No. 9 for a cobbler's shop, in whose place it started from a defective flue. Most of the damage was in the second story. Damage to building, \$300; insurance, \$1,800; insurance paid, \$300. Damage to contents, \$20; no insurance. Companies responding: Engines 1, 2, 3, 4, and Chemical, Hose 1, Trucks 1 and 3. Box pulled by Officer Bourassau.

STILL. Wednesday, March 28, 6.35 P. M. Two-story house on Turner street, owned by Merrill Farmer, and occupied by several families. Caused by an overheated chimney. Slight damage to woodwork. Engine 2 responded with pony.

Box 45. Friday, March 30, 12.30 A. M. Three-story brick block, owned by the S. C. Forsaith Co. as a machine shop. The fire originated in the boiler room. Damage to building, \$252.20 ; insurance, \$20,000 ; insurance paid, \$252.50. Loss on contents covered by "blanket" policy. Companies responding : Engines 1, 2, 3, 4, and Chemical, Hose 1, Trucks 1 and 3. Box pulled by citizen.

STILL. Monday, April 2, 11.24 A. M. Grass fire at Alonzo Elliott's, Ray brook. Engine No. 5 responded with hose carriage.

STILL. Tuesday, April 4, 12.24 P. M. Brush fire on Dow's Hill, Hooksett road. Responded with detail of men. Out four hours.

Box 114. Tuesday, April 4, 3.02 P. M. Burning leaves in barn cellar of D. B. Varney. No damage. Companies responding, Engines 1, 5, and Chemical, Hose 1 and 2, Truck 3. Extinguished before arrival of department. Box pulled by citizen.

STILL. Tuesday, April 4, 8.40 P. M. Rekindling of brush fire in Dow's woods. Took delegation of men. Out five hours.

STILL. Saturday, April 7, 11 A. M. Burning chimney at 528 Chestnut street. Responded with pony. No damage.

STILL. Monday, April 8, 12.25 P. M. Two-story wooden block, 510 Chestnut street, owned by heirs of Joseph A. Haines. Fire in partition caught from defective chimney. Damage slight. Chemical responded. Extinguished before their arrival.

Box 26. Saturday, April 14, 3.17 P. M. Barn rear of 18 South street, owned by James Barnes and occupied by Girardin Bros., dealers in hay and straw. The fire originated in the hay loft, probably caused by carelessness in smoking. The L attached to the barn was slightly damaged. Damage to building, \$500 ; insurance, \$2,500 ; insurance paid, \$375. Damage to contents, \$100 ; no insurance.

STILL. Sunday, April 15, 12.55 P. M. Brush fire near John McQuesten's on river road, near Bedford line. Engine 2 responded with hose wagon. No damage.

STILL. Sunday, April 15, 8.20 P. M. Brush fire on Bedford road near Robie's tar sheds. Land owned by Hartshorn heirs. Engine 2 responded with hose wagon, but could find no fire near sheds on their arrival.

Box 213. Monday, April 16, 12.55 A. M. One-story cottage on Maple street, near Shasta, owned and occupied by Frank Rankin. Fire originated from defective chimney, and burned through the roof. Damage to building, \$87; insurance, \$300; insurance paid, \$87. Damage to contents, \$43; insurance, \$100; insurance paid, \$43. Companies responding: Engines 1, 3, and Chemical, Hose 2, Truck 3. Box pulled by night watchman at Austin, Flint & Day's works.

Box 27. Monday, April 16, 9.46 A. M. Cottage house 471 Manchester street, owned by Mrs. Margaret E. Amsden and occupied by her and Charles A. Williams. The fire was in a lounge near stove. Cause unknown. Damage to building \$20; insurance, \$1,500; insurance paid, \$20. Damage to contents, \$20; insurance, \$200; insurance paid, \$20. Companies responding: Engines 3, 4, and Chemical, Hose 2, and Truck 3. Box pulled by Assistant Chief of Police Cassidy.

Box 54. Tuesday, April 17, 2.27 P. M. Brush fire on Bedford road, near Bedford line. No damage. Needless alarm. Companies responding: Engines 2, 6, and Chemical, Truck 3. Box pulled by citizen.

STILL. Wednesday, April 18, 6.35 P. M. Burning chimney in rear of 178 Manchester street. Chemical responded. Used pony. No damage.

Box 4. Friday, April 20, 4.34 P. M. Three-and-one-half-story wooden block, 66 Lake avenue, owned by W. E. Prescott and occupied by Joseph Dufraim and others. The fire originated in a bed from some unknown cause, but was extinguished by Chemical engine. Damage to building, \$10; insurance, \$1,500; insurance paid, \$10. Damage to contents, \$10; no insurance. Companies responding: Engines 2, 3, 4, and Chemical, Hose 1, Trucks 1 and 3. Box pulled by Assistant Engineer Palmer.

Box 313. Sunday, April 22, 10.32 A. M. Two-story wooden

building on Joliette street, owned by Frank I. Lessard and occupied by Alsace Demers as dwelling and bake shop. The fire caught from coals from the oven and burned a little loose wood in the room. Damage to building, \$6; covered by insurance. Companies responding: Engines 2, 4, and 6, Hose 1, Truck 6, and Chemical. Box pulled by citizen.

Box 6. Sunday, April 22, 8.06 P. M. Room 23, Smyth's block, occupied by Charles H. Gilbert. A lace curtain caught from a kerosene lamp but was pulled down and extinguished without further damage. Companies responding: Engines 1, 4, and Chemical, Hose 1 and 2, Trucks 1 and 3. Box pulled by Officer William Steele.

STILL. Wednesday, April 25, 11.45 A. M. Burning chimney in Martin's block, corner Elm and Lowell streets. Used pony. No damage.

Box 21. Monday, April 30, 12.55 A. M. Four-story brick block, 177 Manchester street, owned by Frederick Smyth, and occupied on first floor by Joseph Belmore & Son, where the fire started from some unknown cause, and extended by the partitions to the second story. Several of the inmates of the tenements above the store were rescued by the members of the department by ladders from the truck. Cause of the fire unknown. No damage to building. Damage to contents, \$350; insurance, \$750; insurance paid, \$350. Companies responding: Engines 1, 3, and Chemical, Hose 1, Trucks 1 and 3. Box pulled by Officer O'Malley.

Box 15. Friday, May 4, 12.19 P. M. Three-and-one-half-story wooden tenement block, 63 Pearl street, owned by Mary Platts's heirs, and occupied by several families. Sparks from chimney ignited the shingles. Damage to building \$10; insurance, —; insurance paid, \$10. No damage to contents. Companies responding: Engines 1, 4, 5, 6, and Chemical, Hose 1 and 2, Truck 1. Box pulled by citizen.

Box 4. Tuesday, May 8, 11.02 A. M. Three-story wooden building, 53 Lake avenue, owned by Thomas Stewart and occupied by Mrs. Hannah McQuade as a saloon. The fire started

from some unknown cause in the basement. Damage to building, \$50; insurance, \$2,000; insurance paid, \$50. No damage to contents. Companies responding: Engines 1, 2, 3, and Chemical, Hose 1, and Truck 1. Truck 3, meeting with accident that broke the pole, could not respond. Box pulled by citizen.

STILL. Wednesday, May 9, 9.35 P. M. Burning chimney at 213 Cedar street, in house owned by John Morrison and occupied by Florence Sullivan. Used pony. No damage.

STILL. Friday, May 11, 12.25 A. M. Burning chimney at 53 Amherst street. Chemical responded with pony. No damage.

STILL. Saturday, May 12, 7.50 P. M. Smoking stove caused a little excitement at 35 Market street, Amoskeag Corporation. Chemical responded. No damage.

STILL. Sunday, May 13, 9 A. M. A candle burning at the casket of a dead child tipped over and ignited drapery. The Chemical responded but the fire was extinguished before it arrived.

Out of town call, 2-2-2. Tuesday, May 15, 2.35 P. M. A telephone message was received of a forest fire between the Massabesic and Bald Hill roads. Detail of men responded, but, as there was no danger from the fire, returned without performing any work.

STILL. Tuesday, May 15, 3.40 P. M. Burning chimney at 65 Amherst street. Chemical responded. Used pony. No damage.

STILL. Monday, May 21, 9.40 A. M. An oil stove in store occupied by Mrs. J. D. Lafond, at 1015 Elm street, set fire to some paper, and the Chemical was called, but the fire was extinguished before the arrival of the engine. No damage.

Box 52. Thursday, June 7, 6.16 P. M. Burning chimney at 415 Main street. No damage.

Box 6. Thursday, June 7, 11.57 P. M. One-story brick block on Elm street, owned by The Head & Dowst Co., and occupied by Charles Noll as a box factory, was well under way when the fire was seen from City Hall square, and the box was pulled by

Officer William Steele. The cause of the fire was evidently an overheated flue about the boiler. Damage to building, \$1,450; insurance, \$2,500; insurance paid, \$1,450. Damage to contents, \$9,476.57; insurance, \$5,000; insurance paid, \$4,300. Companies responding: Engines 1, 4, and Chemical, Hose 1 and 2, Truck 1 and 3.

Box 4. Friday, June 8, 12.05 P. M. Three-story tenement house, 64 Cedar street, owned and occupied by Hugh Kelley. Sparks from the chimney caused a lively blaze on the roof. Extinguished by Chemical. Damage to building, \$28; insurance, \$1,100; insurance paid, \$28. No damage to contents. Companies responding: Engines 1, 2, 3, and Chemical, Hose 1, Trucks 1 and 3. Box pulled by citizen.

Box 71. Sunday, June 17, 7.55 A. M. Burning chimney in rear of 71 Cedar street. Needless alarm. Extinguished with pony. Companies responding: Engines 3, 4, and Chemical, Hose 1, Truck 3. Box pulled by Officer Sullivan.

STILL. Sunday, June 17, 3.03 P. M. Unadjusted thermostat in fourth story of Crafts & Green's shoe shop, West Hancock street. Hose from Engine 2 responded. No damage.

Box 8. Tuesday, July 3, 12.56 P. M. Four story brick block, 9 Hollis street, owned by Charles F. Morrill and occupied by several families. The fire originated from some unknown cause in a closet in the tenement occupied by Homer Coté. Damage to building, \$100; insurance, \$6,000; insurance paid, \$100. Damage to contents, \$10; no insurance. Companies responding: Engines 1, 4, 5, and Chemical, Hose 1 and 2, Truck 1. Box pulled by citizen.

Box 15. Wednesday, July 4, 9.32 P. M. Three-story block, 2 Pearl street, owned by Hoyt and Simonds, and occupied by several families. Sparks from fire-works ignited a bed in the room occupied by Archibald Boulanger. The bed was thrown from the window, and the services of the department were not needed. Damage to contents, \$6; no insurance. Companies responding: Engines 1, 4, 5, and Chemical, Hose 1 and 2, Truck 1. Box pulled by citizen.

STILL. Monday, July 9, 10.58 P. M. Three-story wooden block, 243 East High street, owned by Sanborn T. Worthen, and occupied by several families. Caused by lamp explosion. Damage slight. Hose 2 responded.

STILL. Tuesday, July 10, 1.25 P. M. Tenement house owned by John T. Moore, 221 Hanover street, and occupied by John McElroy. The fire started in a closet from some unknown cause. Damage slight. Chemical engine responded and extinguished the fire with pony.

STILL. Wednesday, July 11, 4.40 P. M. Peat fire in bog on Whittemore flats. Engine 6 responded with engine. No damage.

Box 26. Thursday, July 12, 4.08 A. M. Three-story wooden carriage-house at the corner of Bridge and Malvern streets, owned and occupied by J. B. McCrillis & Son, carriage manufacturers. The cause is unknown. Companies responding: Engines 3 and 4, Hose 1 and 2, Truck 3, and Chemical. Box pulled by citizen.

Box 26. Thursday, July 12, 7.28 P. M. Same as above. Sawdust and shaft hanger. No damage, and extinguished without the aid of the department. Companies responding: Engines 1, 3, and Chemical, Hose 1 and 2, Truck 3. Box pulled by citizen.

Box 26. Saturday, July 14, 6.25 A. M. Same as above. Sawdust packing between sheathing. Companies responding: Engines 1, 3, and Chemical, Hose 1 and 2, Truck 3. Damage to building, \$2,000; insurance, \$1,400; insurance paid, \$1,400. Damage to contents, \$6,134.37; insurance, \$4,350; insurance paid, \$4,350. Box pulled by citizen.

STILL. Sunday, July 15, 1.38 P. M. Brush and stump fire at Derryfield park, near pest-house. Chemical engine was called, and stayed until the danger was over. Services not required.

STILL. Tuesday, July 17, 6.42 P. M. Burning chimney at 174 Chestnut street in Chestnut block, owned by Griffin Bros., and occupied by Rhoda Carroll. Chemical responded. No damage.

Box 82. Thursday, July 19, 4.22 P. M. Night lunch cart stationed in wood-yard at the corner of Lowell and Chestnut streets.

Owned and occupied by R. Wood. Fire caught from an oil stove and destroyed the "body" and a portion of the fixtures. Damage, \$275; insurance, \$250; insurance paid, \$100. Companies responding: Engines 1, 4, 5, and Chemical, Hose 1 and 2, Truck 1. Box pulled by citizen.

Box 52. Friday, July 27, 12.20 A. M. A small barn situated in the rear of 29 Winter street, owned and occupied by J. C. Starr. The fire was undoubtedly caused by tramps. Damage to building, \$200; insurance, \$200; insurance paid, \$200. Damage to contents, \$30; no insurance.

STILL. Saturday, July 28, 2.50 P. M. Unadjusted thermostat causes a false alarm from Crafts & Green's shoe shop, West Hancock street. Responded to by hose wagon of Engine 2. No damage.

Box 32. Sunday, July 29, 3.38 P. M. One-story brick building owned and occupied by Langdon Manufacturing Co. as a waste store-room. Spontaneous combustion among the waste was the cause. Damage to contents, \$30. Companies responding: Engines 4, 5, and Chemical, Hose 1, Truck 1. Box pulled by citizen.

Box 212. Sunday, July 29, 4.30 P. M. Woodpile in grove of Elliot Hospital grounds. Set by boys. No damage. Companies responding: Engines 3, 4, and Chemical, Hose 2, Truck 3.

Box 13. Sunday, July 29, 4.45 P. M. Two-story-and-a-half dwelling, corner of Brook and Chestnut streets, owned and occupied by Lewis Simons. Caused by lightning. This alarm came in before all of the apparatus answering to Box 212 had returned to quarters. Damage to building, \$19.50; insurance, \$2,500; insurance paid, \$19.50. Damage to contents, \$27; insurance, \$2,700; insurance paid, \$27. Companies responding: Engines 1, 4, 5, and Chemical, Hose 1 and 2, Truck 1. Box pulled by citizen.

Box 8. Friday, August 3, 10.18 P. M. Three-story wooden building situated on Winter Place, owned and occupied by W. F. Hubbard as a sash and blind factory. The fire caught in the boiler-room from a defective flue, and soon spread through each

story to the roof. Damage to building, \$400; no insurance. Damage to contents, \$400; no insurance. Companies responding: Engines 1, 4, 5, and Chemical, Hose 1 and 2, Truck 1. Box pulled by citizen.

BOX 21. Saturday, August 4, 9.02 A. M. Three-story tenement block, 142 Merrimack street, owned by A. L. and F. G. Walker, and occupied by several families. Fire started in the tenement occupied by George Marsh by up-setting an oil stove. Damage to building, \$140; insurance, \$2,000; insurance paid, \$140. Damage to contents, \$100; no insurance. Companies responding; Engines 3, 4, and Chemical, Hose 1, Trucks 1 and 3. Box pulled by citizen.

BOX 8. Saturday, August 4, 11.20 P. M. Three-story brick block, corner of Elm and Spring streets, known as Wells block, owned by heirs of Dr. A. B. Story, and occupied as stores and tenements. The fire started in rear part of store, 1062 Elm street, occupied by Andrew C. Brember as a bakery, and extended to I. L. Stickney's leather store. Cause unknown. Damage to building, \$562; insurance, \$6,000; insurance paid, \$562. Damage to Brember's contents, \$850; insurance, \$2,000; insurance paid, \$850. Damage to Stickney's contents, \$184.40; insurance, \$16,450; insurance paid, \$184.40. Companies responding: Engines 1, 4, 5, and Chemical, Hose 1 and 2, Truck 1. Box pulled by officer.

BOX 82. Sunday, August 6, 1.03 A. M. Rekindling of the Brember fire. Extinguished by Chemical without additional loss. Companies responding: Engines 1, 4, 5, Hose 1 and 2, Truck 1. Box pulled by citizen.

STILL. Friday, August 17, 7.40 P. M. Brush fire on land owned by John C. Ray near Pine Grove cemetery. Chemical responded, but rendered no service. Fire out before their arrival.

STILL. Saturday, August 18, 8.50 P. M. A pile of sleepers on railroad track above electric light station. Chemical responded. Extinguished with hydrant stream.

BOX 4. Monday, August 20, 7.17 P. M. Burning chimney at

corner of Chestnut and Cedar streets. Needless alarm. Companies responding: Engines 2, 3, 4, Chemical, Hose 1, Trucks 1 and 3. Box pulled by citizen.

Box 212. Friday, August 24, 4.02 P. M. One-story wooden building at corner of Grove and Taylor streets, owned by W. G. Westover, and occupied by Westover & Gould for the manufacture of stair rails, etc. The cause of the fire was probably sparks from the boiler. Damage to building, \$1,000; insurance, \$1,000; insurance paid, \$1,000. Damage to contents, \$2,500; insurance, \$1,500; insurance paid, \$1,500. Companies responding: Engines 3, 4, and Chemical, Hose 2, and Truck 3. Box pulled by citizen.

STILL. Monday, August 27, 7.20 A. M. Burning chimney at 31 Bridge street. Chemical responded. No damage.

Box 71. Friday, August 31, 8.55 P. M. Four-story tenement block, 180 Chestnut street, owned by Griffin Brothers, and occupied by several families. In the tenement occupied by Richard M. Cann a person lighting paper from a gas jet to light a pipe dropped a spark in a child's crib. Extinguished before arrival of department. No damage. Companies responding: Engines 1, 3, and Chemical, Hose 1, Truck 3. Box pulled by citizen.

Box 21. Tuesday, September 4, 2.07 P. M. Loose paper in an unoccupied shed at rear of 88 Merrimack street. Extinguished with two pails of water before arrival of the department. No damage. Companies responding: Engines 1, 3, and Chemical, Hose 1, Trucks 1 and 3. Box pulled by citizen.

STILL. Tuesday, September 4, 5.03 P. M. Brush fire on Mammoth road near V. W. Fairbanks's. Took two-horse team and men, but services not needed.

Box 21. Saturday, September 8, 7.56 A. M. Tar kettle in rear of J. N. Foss's stable, 148 Merrimack street, boiled over. Damage to building, \$26; insurance, \$3,700; insurance paid, \$26. No damage to contents. Companies responding: Engines 1, 3, and Chemical, Hose 1, Trucks 1 and 3. Box pulled by citizen.

Box 5. Monday, September 10, 10.10 A. M. Four-story brick

block, corner of Elm and Central streets, owned by Brown, Straw & Brown, and occupied by George R. Taft as a hotel. The fire originated in a dark storeroom from filling lamps on the third floor, and communicated to the roof through a light shaft. Most of the damage was confined to the third story. Damage to building, \$480.50; insurance, \$20,000; insurance paid, \$480.50. Damage to contents, \$300; insurance, \$2,100; insurance paid, \$191. Companies responding: Engines 1, 2, 3, and Chemical, Hose 1, Trucks 1 and 3. Box pulled by citizen.

STILL. Monday, September 24, 2.25 P. M. Burning chimney in block owned by Adolph Becker, 110 West street, and occupied by Charles Lange. No damage.

STILL. Saturday, September 29, 12 M. Slight fire at 58 Spring street, in a mattress. Extinguished with a pail of water.

BOX 6. Tuesday, October 2, 1.18 A. M. Four-story brick block, 37 and 43 Manchester street, owned by Edward Wagner, and occupied by George Connor (37) and W. H. Hurd (43) as saloons, and by Albina Kneifel as a boarding house. The fire originated from some unknown cause in an arched partition over Connor's saloon and extended to the tenement upstairs. In the early part of the fire an explosion of hot air or gas occurred, burning Driver Blenus and Hoseman Patten of Hose 1 and Ladderman Edgar of Truck 1 quite seriously about the face and hands; also Officer Hutchins of the police force. Damage to building, \$500; insurance, \$6,000; insurance paid, \$395. Damage to Connor's contents, \$800; insurance, \$1,300; insurance paid, \$800. Damage to Hurd's contents, \$100; insurance, \$2,000; insurance paid, \$55. Damage to Kneifel's contents, \$50; no insurance. Companies responding: Engines 1, 4, and Chemical, Hose 1 and 2, Trucks 1 and 3. Box pulled by Officer Hutchins.

STILL. Tuesday, October 2, 5.10 P. M. Burning chimney at 30 Clark avenue, Pearl street, in tenement block owned by heirs of Joseph B. Clark. Sheathing about the chimney burned a little. Damage to building, \$4.73; insurance, \$2,000; insurance paid, \$4.73. No damage to contents. Chemical responded.

STILL. Friday, October 12, 3.15 P. M. A smoking chimney

in a room in second story of Ray's block, corner of Elm and Kidder streets. Called the Chemical. No damage.

BOX 214, 6.40 P. M. BOX 215, 6.50 P. M. Sunday, October 14. A barn and hen-pen attached, corner Wilson and Young streets, owned by Alvina Chabotte, and occupied by Albert Lamy. Cause unknown. Damage to building, \$150; insurance, \$150; insurance paid, \$150. Damage to contents, \$100; insurance, \$100; insurance paid, \$100. Companies responding: Engines 1, 3, 4, and Chemical, Hose 1 and 2, Trucks 1 and 3.

BOX 7. Tuesday, October 16, 9.55 P. M. One-story wooden building, 370 Chestnut street, owned by Mrs. Natt. Head, and occupied by W. H. Adams as a harness shop. The fire was caused by spontaneous combustion and did but little damage to building. Extinguished by Chemical. Damage to contents, \$160; insurance, \$400; insurance paid, \$160. Companies responding: Engines 1, 3, and Chemical, Hose 1, Trucks 1 and 3. Box pulled by Officer Burns.

BOX 212. Wednesday, October 17, 2.49 A. M. Three-story tenement block, Oakland and Highland Park avenues, owned and occupied by Ernest Boisvert. The cause of the fire is unexplained. It started in the center of the building, and on account of the distance from a box and delay in communicating information of the fire, it gained considerable headway before the arrival of the department. Damage to building, \$1,200; insurance, \$2,800; insurance paid, \$1,200. Damage to contents, \$500; insurance, \$600; insurance paid, \$500. Box pulled by citizen. Companies responding: Engines 1, 3, and Chemical, Hose 2, Truck 3. Box pulled by member of Engine Co. 3.

STILL. Thursday, October 18, 11.26 A. M. Brush fire on Kelley street, McGregorville. Members of Engine 6 responded with ponies. No damage.

BOX 321. Friday, October 19, 8.46 A. M. Cottage house at 294 Dubuque street, owned and occupied by Joseph Huard. Clothes in a closet discovered on fire, presumably from matches. Damage to contents, \$10; no insurance. Companies responding: Engines 2, 6, and Chemical, Hose 1, Truck 6. Box pulled by citizen.

Box 45. Monday, November 5, 3.04 A. M. Freight car of Boston & Maine with thirteen bales of cotton for Amory Mills. Three other cars damaged. Damage to cars, \$275; damage to cotton, \$355.65; insured in "blanket" insurance for \$461.25; insurance paid, \$355.65. Companies responding: Engines 1, 2, 3, 4, and Chemical, Hose 1, Trucks 1 and 3.

STILL. Tuesday, November 6, 8.45 A. M. Cottage house, 236 Amherst street, owned and occupied by Mrs. B. P. Cilley. Burning chimney ignited the woodwork, and Chemical engine responded. Damage to building, \$20.43; insurance, \$2,500; insurance paid, \$20.43. No damage to contents.

Box 6. Wednesday, November 7, 9.53 A. M. Four-story brick building, 22-24 Hanover street, owned by Harrington heirs and occupied by E. C. Wescott as dry and fancy goods store. One of the clerks with lighted match accidentally set fire to cotton batting. Damage to contents, \$114; insurance, \$10,000; insurance paid, \$114. Companies responding: Engines 1, 4, and Chemical, Hose 1 and 2, Trucks 1 and 3. Box pulled by citizen.

STILL. Friday, November 9, 8.20 P. M. Four-story brick block, Prout's block, 696 Elm street. Broken lamp. No damage. Chemical responded.

Box 315. Wednesday, November 14, 4.47 A. M. Two-story wooden building, 156 Front street, 'Skeag, owned by Tom W. Robinson and occupied by Edward Dupont as blacksmith shop. The fire caught from the forge. Damage to building, \$100; insurance, \$400; insurance paid, \$100. Damage to contents, \$10; insurance, \$100; insurance paid, \$10. Companies responding: Engines 5, 6, and Chemical, Ladder 6. Box pulled by citizen.

STILL. Wednesday, November 14, 11.30 P. M. Burning chimney at 43 Winter street, owned by L. H. Loughlin and occupied by three families. Members of Engine 2 responded. Used pony. No damage.

STILL. Thursday, November 15, 2.10 P. M. Rubbish in cellar of Thomas Sullivan's cigar store, 984 Elm street. Members of Chemical responded. No damage.

STILL. Sunday, November 18, 9.50 P. M. Burning chimney in Smyth's block. Members of Chemical responded. Used pony. No damage.

Box 18. Tuesday, November 20, 6.39 P. M. Three-story wooden block at 515 Lincoln street, owned by Mrs. Mary A. Whittier and occupied by several families. The fire originated in the tenement occupied by H. F. Hunt. Caused by sparks from stove catching on a rug and communicating to the partition. Damage to building, \$35; insurance, \$3,000; insurance paid, \$35. Damage to Hunt's contents, \$100; insurance, \$500; insurance paid, \$100. Companies responding: Engines 3, 4, and Chemical, Hose 1 and 2, Truck 3. Box pulled by citizen.

Box 52. Thursday, November 22, 10.49 A. M. A small horse-shed in rear of 472 Granite street, owned and occupied by Joseph Gare, caught fire from some unknown cause. A horse inside was so badly burned that it was shot. Damage to building, \$5; to contents, \$50; no insurance. Companies responding: Engines 2, 6, and Chemical, Hose 1, Ladder 6. Box pulled by citizen.

Box 7. Monday, November 26, 9.33 A. M. Tar kettle boiled over in rear of 196 Manchester street, E. Turcotte's stable. Companies responding: Engines 3, 4, and Chemical, Hose 1, Ladders 1 and 3. No damage. Box pulled by citizen.

STILL. Monday, November 26, 6.50 P. M. Burning chimney at 51 Cedar street. Responded to by members of Chemical Engine Co. Used pony.

STILL. Wednesday, November 28, 9.10 A. M. Brush fire on North Weare Railroad, on land owned by Manchester Beef Co. Members of Engine 2 responded with hose wagon. No damage.

STILL. Monday, November 26, 10.10 A. M. Grass fire on Taylor street, near Westover and Gould's. Engine 3 responded with apparatus. No damage.

STILL. Monday, November 26, 6.05 P. M. Burning chimney at 1235 Elm street. Members of Chemical responded. Used pony.

STILL. Monday, November 26, 7.15 P. M. Burning chimney

at 133 Central street. Members of Chemical responded. Used pony.

STILL. Monday, November 26, 7.40 P. M. Burning chimney at 180 Chestnut street. Chemical responded. No damage.

Box 21. Thursday, November 29, 1.43 A. M. Second alarm pulled immediately. Four-and-one-half-story wooden tenement building at 195 Hanover street, owned by Frederick Smyth, Kendall heirs, and Ambrose Pairie, and occupied by several families. The fire was caused by a defective flue in the rear tenement, and gained considerable headway in the partition before it was discovered. Damage to building, \$1,075; insurance, \$4,150; insurance paid, \$1,075. Damage to contents, \$155; insurance, \$500; insurance paid, \$155. Companies responding: Engines 1, 2, 3, 4, Chemical, Hose 1 and 2, Trucks 1 and 3. Box pulled by officer.

Box 17. Monday, December 3, 7.21 A. M. Three-story double tenement, corner Maple and Concord streets. Loose excelsior in basement ignited from some unknown cause and was extinguished before the arrival of the department. No damage. Companies responding: Engines 1, 3, and Chemical, Hose 1 and 2, Truck 3. Box pulled by citizen.

Box 5. Thursday, December 6, 5.31 P. M. Breaking a kerosene lamp in Palmer House, corner of Elm and Pleasant streets, caused an alarm. No damage. Companies responding: Engines 2, 3, 4, Chemical, Hose 1, Trucks 1 and 3. Box pulled by citizen.

Box 8. Monday, December 10, 11.55 P. M. Four-story brick block, 1148 Elm street, owned by Hiram D. Upton and occupied for stores, tenements, and offices. The fire started from some unknown cause in the basement of millinery store of Archambeault & Co., destroying nearly all their stock and damaging others by smoke. Damage to building, \$1,550; insurance, \$40,000; insurance paid, \$1,550. Damage to Archambeault's contents, \$1,300; insurance, \$1,500; insurance paid, \$1,300. Damage to F. H. Auger's contents, \$100; insurance, \$2,300; insurance paid, \$100. Damage to Brault Medicine Co.,

\$23; insurance, \$200; insurance paid, \$23. Damage to A. G. Grenier's contents, \$100; insurance, \$2,000; insurance paid, \$100. Damage to Hub Clothing Co., \$125; insurance, \$5,000; insurance paid, \$125. Damage to O. C. McColley's contents, \$325; insurance, \$500; insurance paid, \$325. Companies responding: Engines 1, 4, 5, Chemical, Hose 1, 2, Truck 1. Box pulled by Officer Badger.

STILL. Tuesday, December 11, 10.45 A. M. Slight fire in the rubbish in cellar of Amoskeag Clothing Co., at 1045 Elm street. Members of Chemical responded. No damage.

STILL. Friday, December 14, 7.55 P. M. Burning chimney in house owned and occupied by Adolph Becker, 115 West street, West Manchester. Members of Engine 2 responded with pony. No damage.

STILL. Saturday, December 15, 1.54 P. M. Tar kettle on Spring street tipped over and tar caught fire. Chemical responded. Used pony.

Box 9. Tuesday, December 18, 1.05 A. M. Sparks from a locomotive on Concord & Montreal Railroad set fire to grass in field of George E. Hall, corner of Webster street and North River road. No damage. Companies responding: Engines 1, 5, and Chemical, Hose 1, Truck 1. Box pulled by Officer Burns.

STILL. Tuesday, December 18, 7.35 A. M. Burning chimney at 350 Chestnut street. No damage. Chemical engine responded. Used pony.

STILL. Saturday, December 22, 4.05 P. M. Burning chimney at 388 Cartier street, owned by Dr. Sturtevant, and occupied by Frank Daniel. Members of Engine 6 responded with pony. No damage.

Box 212. Sunday, December 23, 1.05 P. M. Two-and-a-half-story brick house on Mooresville road, three and a half miles from Central station, owned and occupied by Mrs. Susan C. Blodgett. The fire originated from the same defective flue as the one of March 16, 1889, and destroyed the most of the inside of the main house, particularly the west end, but was kept entirely

from the L adjoining the east end. Most of the furniture was removed. Water was taken from Cohas brook by Engine 1, pumped through 1,050 feet of hose, into Engine 3, which pumped through 1,300 feet of hose to fire. Damage to building, \$3,000; insurance, \$3,500; insurance paid, \$2,675. Damage to contents, \$400; insurance, \$500; insurance paid, \$310. Companies responding: Engines 1, 3, and Chemical, Hose 2, Truck 3. Box pulled by citizen.

STILL. Sunday, December 23, 7.10 P. M. Burning chimney at 133 Amherst street. No damage. Chemical Company responded. Used pony.

STILL. Monday, December 24, 6.05 P. M. Smyth's block. Slight fire in floor timbers over the Opera House. Cause unknown. No damage. Chemical Company responded.

STILL. Saturday, December 29, 7.30 P. M. Burning chimney in Washington block, Pearl street. Members of Chemical Company responded. Used pony. No damage.

STILL. Monday, December 31, 6.55 P. M. Cottage house 78 West street, West Manchester, owned by Mrs. E. B. Fröschl, and occupied by George W. Pierce. A child's crib caught fire from a stove. Members of Engine 2 responded with hose carriage and ponies. Used ponies. Damage to contents, \$25; no insurance.

Number of bell alarms	65
Number of still alarms	71
Total	<u>136</u>
Valuation of property endangered	\$390,673.52
Insurance on property endangered	213,511.25
Aggregate losses for 1893	\$42,581.15
Amount of insurance paid	<u>31,312.71</u>
Net loss not covered by insurance	\$11,268.44

The several companies have responded to alarms as follows:

Engine Co. No. 1 — 36 times.

Engine Co. No. 2 — 29 times.

Engine and Ladder Co. No. 3—37 times.

Engine Co. No. 4—35 times.

Engine Co. No. 5—15 times.

Engine and Ladder Co. No. 6—12 times.

Hose Co. No. 1—50 times.

Hose Co. No. 2—30 times.

Ladder Truck No. 1—37 times.

Chemical—93 times.

Number and Location of Alarm-Boxes and Keys.

No. 3. Blood's lower shop. Keys at offices of gas-works, county jail, DeCourcy & Holland, and Charles H. Hutchinson's shop.

No. 4. Corner of Spruce and Elm streets. Keys at Hotel Oxford, L. B. Bodwell & Co.'s, Palmer & Garmon's, Horse Railroad stables, and W. C. Blodgett's office.

No. 5. Corner of Merrimack and Elm streets. Keys at Tebbetts & Soule's and Currier's drugstores, and Manchester House.

No. 6. City Hall. Keys at Holland's and Thurston's drugstores, J. A. Riddle's office, and residence of J. L. Brock, 21 Amoskeag Corporation.

No. 7. Police station, corner of Manchester and Chestnut streets. Keys at chief of police's office, and with all police officers.

No. 8. Corner Elm and Hollis streets. Keys at Smith & Co.'s and Colby's drugstores, Partridge Bros.' grain store, and E. V. Rowe's residence, 1261 Elm street.

No. 9. Corner of Elm and Webster streets. Keys at residences of Mrs. H. D. Corliss, J. Freeman Clough, Dr. E. Fritz, and station of Engine No. 6.

No. 12. Corner of North and Pine streets. Keys at residences of John Mooar, George Emerson, Walter A. Green, and O. D. Knox.

No. 13. Corner of Brook and Chestnut streets. Keys at resi-

dences of Welcome Jencks and Lewis Simons, No. 1 Senter's block, and Chase & Cate's grocery store.

No. 14. Corner of Prospect and Union streets. Keys at residences of Mrs. W. Ireland, Mrs. George W. Riddle, D. J. Adams, E. L. Bryant, A. H. Olzendam, and Mrs. Thomas Morgan.

No. 15. Corner of Pearl and Chestnut streets. Keys at residences of William B. Corey, Henry W. Shannon, and J. Fred Chalker.

No. 16. Corner of Lowell and Union streets. Keys at residences of Rt. Rev. Bishop Bradley and R. R. Hassam.

No. 17. Corner of Amherst and Beech streets. Keys at residences of Mrs. H. P. Watts and Michael Connor.

No. 18. Corner of Manchester and Maple streets. Keys at residences of the late H. E. Stevens, A. N. Baker, and Mrs. William Perkins.

No. 21. Corner of Merrimack and Pine streets. Keys at A. D. Smith's drugstore, J. McKeon's grocery store, A. L. Walker's office, and residence of James F. Gillis.

No. 23. Corner of Central and Beech streets. Keys at residences of Eben T. James and Mrs. Josiah Stevens.

No. 24. Engine and Ladder Co. No. 3 house, corner of Masabesic street and Lake avenue. Keys at residence of D. M. Goodwin and station of Engine and Ladder No. 3.

No. 25. Corner of Hanover and Ashland streets. Keys at residences of George F. Lincoln, A. D. Gooden, Horace Stearns, the late Horace Gordon, and James R. Straw.

No. 26. Corner of Bridge and Russell streets. Keys at McCrillis's carriage shop, John N. Foss's stable, and residence of John N. Chase.

No. 27. Corner of Belmont and Amherst streets. Keys at residences of H. M. Tarbell, A. G. Fairbanks, E. S. Fletcher, William Carr, and George H. Hubbard.

No. 31. Corner of Canal and Hollis streets, Blood's shop. Keys at office, Amory Mills, Langdon Mills watchrooms.

No. 32. Langdon Mills block, corner of Canal and Brook streets. Keys at the Amoskeag Paper Company's mill, Langdon watchroom, and Electric Light station.

No. 34. Jefferson Mill. Keys at watchroom and pumping station.

No. 35. Stark Mills. Keys at watchroom.

No. 36. Amory Mills. Keys at watchroom.

No. 39. Hillsborough county jail. Keys at office.

No. 41. Amoskeag Mills. Keys at watchroom.

No. 42. Manchester Mills. Keys at watchroom.

No. 43. Olzendam's Mill. Keys at watchroom.

No. 45. The S. C. Forsaith Co.'s shops. Keys at freight depot and S. C. Forsaith Co.'s office.

No. 51. Corner of Walker and Second streets. Keys at stores of F. Riedel and William Weber.

No. 52. Barr's brick block, West Manchester. Keys at Fradd & Co.'s and A. N. Clapp's stores, Merrimack House, and Engine No. 2 house.

No. 53. Wallace's steam mill. Keys at Wallace's office, I. R. Dewey's tenement block, and Ranno Harness Co.'s store.

No. 54. Corner of A and Bowman streets. Keys at residences of Lord sisters, Neil Fullerton, and George W. Davis's store.

No. 56. Baldwin's bobbin shop. Keys at Baldwin's office and residences of J. C. Smith, E. P. Littlefield, and with watchman at works.

No. 61. Corner of River road and Hancock street, Bakersville. Keys at Mary Stack's saloon, True W. Jones Co.'s brewery, residence of H. F. Dillingham, and store of John A. Kane.

No. 62. Gerrish Wool and Leather Co.'s, River road. Keys at tannery and Edwin Kennedy house.

No. 71. Corner of Cedar and Pine streets. Keys at residences of T. Collins, Daniel Sheehan, Thomas J. Smith, Simon McCarthy, and store of J. J. Toomey.

No. 72. Corner of Lake avenue and Lincoln street. Keys at residences of the late Austin Jenkins, James Briggs, and Clarence D. Palmer.

No. 73. Corner of Beech and Cedar streets. Keys at residences of Rev. J. A. Chevalier and Timothy Carr.

No. 81. Central Fire Station, Vine street. Keys at all the engine rooms.

No. 82. Old City Hotel, corner Lowell and Church streets. Keys at Syndicate Furniture Co.'s, Lowell-street stable, Nichols's stable, and Eames Bros.' drugstore.

No. 112. Corner of Sagamore and Union streets. Keys at residences of W. T. Stevens, W. A. Clarkson, M. D. Johnson, Charles F. Chase, and William H. Drury.

No. 113. Corner of Oak and Prospect streets. Keys at residences of Mrs. William B. Abbott, W. N. Johnson, and E. M. Topliff.

No. 114. Corner of Pearl and Ash streets. Keys at residences of A. P. Olzendam, G. A. Olzendam, W. S. Shannon, and John J. Bennett.

No. 212. Shoeshop, Hallsville. Keys at the office of the shoe factory and residences of Charles C. Chase, G. W. Dearborn, Mrs. Milton A. Abbott, M. V. B. Garland, and Walter Cody's block.

No. 213. Sash and blind factory, South Beech street, junction of Portsmouth Railroad. Keys at offices of Austin, Fint & Day and Dana & Provost.

No. 214. Elliott silk mill, corner of Wilson and Valley streets. Keys at office and watchroom of mill and at foundry opposite.

No. 215. Hoyt & Co.'s shoeshop, corner of Lincoln and Somerville streets. Keys at offices of shoeshop and Kimball Carriage Co. and residence of Mrs. A. B. Johnson.

No. 261. Pearl-street grammar school. Keys at schoolroom and residences of Henry H. Everett, C. E. Rose, S. W. Bascom, and Charles W. Cheney, Jr.

No. 312. Corner of Putnam, Main, and McGregor streets. Keys at residences of James Spence (309 Main street), Thomas Bolton, gate of No. 11 mill, and station of Engine and Ladder No. 6.

No. 313. Corner of Amory and Main streets. Keys at residences of Allen Dean and Lawrence M. Connor, Bouthillier & Gingras's drugstore, Miville & Co's drugstore, gate of No. 11 mill, and station of Engine and Ladder No. 6.

No. 314. P. C. Cheney Co.'s paper mill. Keys at office, Annis's branch grain store, and Independent Hose house.

No. 315. Old Brick Store at 'Skeag. Keys at Flanders's store, Independent Hose house, and D. L. Robinson's residence.

No. 321. Corner Beauport and Wayne streets. Keys at Holy Angels' Convent, the Brothers' School, and residences of E. H. Doherty and Rev. Father Hévey.

No. 323. Corner of Putnam and Bartlett streets. Keys at Albert Oliver's store, P. J. Archambeault's bakery, and residence of Officer Lewis Clement.

No. 511. Corner of Douglas and Green streets. Keys at residences of Amelia Davis, William A. Tufts, and James Kearns.

No. 513. Corner of Milford and Carroll streets. Keys at residences of J. W. Abell, James Ward, and Mrs. Elizabeth Ward.

Also, keys will be found in the hands of all regular police.

The true time will be given at precisely 12.30 P. M. from Charles A. Trefethen's jewelry store, and will be denoted by one strike of the fire bells.

Telephone Calls.

Chemical Engine, Central station	. . . . .	64-3
Chief Engineer's office	. . . . .	64-3
Chief Engineer's residence	. . . . .	64-4
Assistant Engineer Whitney's residence	. . . . .	34-4
Assistant Engineer Whitney's office	. . . . .	73-3
Assistant Engineer Merrill's residence	. . . . .	206-3
Assistant Engineer Merrill's store	. . . . .	55-4
Engine No. 2	. . . . .	64-2
Engine and Ladder No. 3	. . . . .	64-5
Engine No. 5	. . . . .	64-6
Engine and Ladder No. 6	. . . . .	64-7
Hose No. 2	. . . . .	116-4

Instructions to Key-holders and Citizens.

1. Upon the discovery of a fire, notice should be immediately communicated to the nearest alarm-box, the keys to which are in

the hands of all regular police, and generally of persons at the corner or nearest house.

2. Key-holders, upon the discovery of a fire, or positive information of a fire, will unlock the box, pull down the hook once as far as it will go (without jerking), and then let go. Shut the door, but do *not* try to remove the key, as it is locked in by a trap-lock, and can only be removed with a release-key, which is carried by each of the engineers, who will, as soon as convenient, release and return it.

3. All persons giving fire alarms are requested to remain by the box a moment, and if no clicking is heard in the box, pull again; if you still hear no clicking, go to the next nearest box, procure another key, and give an alarm from that.

4. Never signal for a fire seen at a distance. Never touch the box except to give an alarm of fire. Give an alarm for no cause other than actual fire. **DON'T GIVE AN ALARM FOR A CHIMNEY FIRE.**

5. Never let the keys go out of your possession unless called for by the chief engineer. *If you change your residence or place of business, where the keys are kept, return the keys to the same officer.*

6. Owners and occupants of buildings are requested to inform themselves of the location of alarm-boxes near their property, also all places where the keys are kept. Be sure the alarm is promptly and properly given.

7. Alarms will be sounded upon all the fire-bells in the city, and the number of the box will be given thus: Box 6, six blows, $2\frac{1}{2}$ seconds apart, repeated three times. Box 212, two blows, pause of $6\frac{1}{4}$ seconds, one blow, same pause, and two blows, 2 — 1 — 2, repeated three times.

8. The engineers reserve the right to give one stroke of the bells at any time; and in case of testing the boxes, each test will be preceded by one stroke of the bells.

TABLE

SHOWING THE APPARATUS CALLED TO DIFFERENT BOXES ON FIRST, SECOND, AND THIRD ALARMS.

BOXES.	FIRST ALARM.			SECOND ALARM.			THIRD ALARM.			
	Engine.	Hose.	Hook-and-ladder.	Engine.	Hose.	Hook-and-ladder.	Engine.	Hose.	Hook-and-ladder.	
3.....	1st R. 3	C. 1	1	1-3	2d R. 2	.....	5-6	2	6
4.....	1st R. 2-3	"	1	1-3	2d R.	2	5-6	.....	6
5.....	1st R. 2-3	"	1	1-3	2d R.	2	5-6	.....	6
6.....	1st & 2d R.	"	1-2	1-3	2-3	.....	5-6	.....	6
7.....	1st R. 3	"	1	1-3	2d R.	2	2-5-6	.....	6
8.....	1st & 2d R. 5	"	1-2	1	3	3	2-6	.....	6
9.....	1st R. 5	"	1	1	2d R.	2	2-3-6	.....	3-6
12.....	5	"	1	1	1st R.	2	2d R. 2-3-6	.....	3-6
13.....	1st R. 5	"	1-2	1	2d R.	3	2d R. 2-3-6	.....	6
14.....	1st R. 5	"	1-2	3	2d R. 3	1	2-6	.....	6
15.....	1st & 2d R. 5	"	1-2	1	3	3	2-6	.....	6
16.....	1st R. 5	"	1-2	1	2d R. 3	3	2-6	.....	6
17.....	1st R. 3	"	1-2	3	2d R. 5	1	2-6	.....	6
18.....	1st R. 3	"	1-2	3	2d R.	1	2-5-6	.....	6
21.....	1st R. 3	"	1	1-3	2d R. 2	2	5-6	.....	6
23.....	1st R. 3	"	1-2	3	2d R.	1	2-5-6	.....	6
24.....	1st R. 3	"	1-2	3	2d R.	1	2-5-6	.....	6
25.....	1st R. 3	"	1-2	3	2d R.	1	2-5-6	.....	6
26.....	1st R. 3	"	1-2	3	2d R. 5	1	2-6	.....	6
27.....	1st R. 3	"	1-2	3	2d R.	1	2-5-6	.....	6
31.....	1st R. 6	"	1	1	2d R. 5	2	2-3	.....	3
32.....	1st R. 5	"	1	1	2d R. 6	2	2-3	.....	3
34.....	1st & 2d R. 5-6	"	1-2	1	2-3	3-6	.....	.....	.....
35.....	1st & 2d R. 5-6	"	1	1	2-3	2	3-6	.....	.....
36.....	1st & 2d R. 5-6	"	1	1	2-3	2	3-6	.....	.....
39.....	1st R. 3	"	1	1-3	2d R. 2	2	5-6	.....	6
41.....	1st & 2d R. 2-3	"	1	1-3	5-6	2	6	.....	.....
42.....	1st & 2d R. 2-3	"	1	1-3	5-6	2	6	.....	.....
43.....	1st R. 2-3	"	1	3	2d R. 6	2	1	5	6
45.....	1st & 2d R. 2-3	"	1	1-3	5	2	6	.....	6
51.....	2-6	"	6	1st R. 3	1	3	2d R. 5	2	1
52.....	2-6	"	1	6	1st R. 3	3	2d R. 5	2	1
53.....	2-6	"	1	6	1st R. 3	3	2d R. 5	2	1
54.....	2-6	"	6	1st R.	1	2d R. 3-5	2	1-3
56.....	2-6	"	1	6	1st R. 3	3	2d R. 5	2	1
61.....	1st R. 3	"	1	3	2d R. 2	5-6	2	1-6
62.....	1st R. 3	"	1	3	2d R. 2	5-6	2	1-6
71.....	1st R. 3	"	1	3	2d R.	2	1	2-5-6	6
72.....	1st R. 3	"	1	3	2d R.	2	1	2-5-6	6
73.....	1st R. 3	"	1	3	2d R.	2	1	2-5-6	6
81.....	1st & 2d R.	"	1	1	5	2	3	2-6	6
82.....	1st & 2d R.	"	1-2	1	5-6	3-6	2
112.....	1st R. 5	"	2	3	2d R.	1	1	2-3-6	6
113.....	1st R. 5	"	2	3	2d R.	1	1	2-3-6	6
114.....	1st R. 5	"	1-2	3	2d R. 3	1	2-6	6
212.....	1st R. 3	"	2	3	2d R.	1	1	2-5-6	6
213.....	1st R. 3	"	2	3	2d R.	1	2-5-6	1-6
214.....	1st R. 3	"	1-2	3	2d R.	1	2-5-6	6
215.....	1st R. 3	"	2	3	2d R.	1	1	2-5-6	6
261.....	1st R. 3	"	1-2	3	2d R. 5	1	2-6	6
312.....	1st R. 2-6	"	1	6	2d R. 5	2	1	3	3
313.....	1st R. 2-6	"	1	6	2d R. 5	2	1	3	3
314.....	5-6	"	1	6	1st R. 2	2d R. 3	2	1-3
315.....	5-6	"	6	1st R.	1	2d R. 2-3	2	1-3
321.....	2-6	"	1	6	1st R. 5	1	2d R. 3	2	3
323.....	2-6	"	1	6	1st R. 5	1	2d R. 3	2	3
511.....	2-6	"	6	1st R.	1	3	2d R. 3-5	2	1
513.....	2-6	"	6	1st R.	1	2d R. 3-5	2	1-3

Rules and Regulations in Regard to Responding to Fires and Alarms.

The following rules have been adopted by the board of engineers, and the fire department will strictly comply until otherwise ordered, and will attend alarms of fire as per running card.

RUNNING RULES.

Whenever an alarm is sounded, the members of all companies not called to that box will report to their respective company quarters, and *there remain until dismissed* by the signal on the bells or by an engineer in charge.

In case companies on their first run have responded to an alarm, companies on their second run to the box from which the alarm has been sounded will answer all first-run boxes of the absent companies; and in case engines are out that would respond to another box, then third-alarm companies will respond. In case of an alarm from a box that does not call for a third alarm, companies on their second run will then answer to all other boxes.

Whenever two trucks answer to first alarm, the other truck will answer to all other boxes.

At any time when an alarm of fire is given, the engine, hose carriage, or truck that leaves the house first will have the right to lead to the fire. Whenever a horse lags or gives out, drivers should then give others the right of way, so as not to delay the rest of the apparatus. NO RUNNING BY WILL BE ALLOWED, EXCEPT IN CASE OF ACCIDENT, UNDER PENALTY OF DISMISSAL OF THE DRIVER FROM THE DEPARTMENT.

The drivers shall not permit persons not connected with the department to ride upon their apparatus, and in muddy weather or heavy wheeling they shall not permit any one to ride upon their apparatus when returning from fires.

Engineers of steamers will not run over eighty (80) pounds water pressure, except when orders are received from a member of the board of engineers or of the officer in command of the company.

WHISTLE SIGNALS.

The following code of signals will be observed by members of the department :

FOR CAPTAIN, or officer in command of company, one long whistle.

FOR COAL, two long whistles followed by as many short whistles as indicate the number of the engine.

TO LIMBER UP, three long whistles.

THIRD ALARM.

ON THIRD ALARM all apparatus will respond.

GENERAL ALARM.

In the event of a fire of such magnitude that second and third alarms are needed, a general alarm will be given by striking TEN BLOWS, in which case all companies will respond.

SPECIAL CALLS ON FIRE ALARM.

When more apparatus is wanted without giving a second or third alarm, the following special calls will be given :

2—1 for Engine 1.	1—1—1 for Aerial Truck.
2—2 “ “ 2.	3—3 for Truck 3.
2—3 “ “ 3.	3—6 “ “ 6.
2—4 “ “ 4.	4—1 for Hose 1.
2—5 “ “ 5.	4—2 “ “ 2.
2—6 “ “ 6.	4—3 “ “ 3.

Companies answering “special calls” will wait thirty seconds before leaving quarters to prevent mistakes.

OUT OF TOWN CALLS.

For a fire out of the city 2—2—2, in which case all companies will assemble at their respective quarters and await orders.

ALL OUT SIGNAL.

Two blows on the bells, which dismisses all members at company quarters.

TEST SIGNAL.

One blow at 12.30 noon.

SCHOOL SIGNALS.

1—1 with fifteen seconds between blows closes primary and middle schools.

2—2 with fifteen seconds between the 2's closes all the schools.
Time for giving same, 7.45 A. M., 11.30 A. M., or 1.15 P. M.

MILITARY CALL.

12 blows twice.

Rules for Exercising Horses.

It shall be the duty of the drivers of engines, hose carriages, hose wagons, hook-and-ladder trucks, and all other apparatus connected with this department, to exercise their horses every day, weather permitting, except Sunday, with the exception of engines having "first" and "second runs," and in such cases must exercise on days of "second run," the same to be done within the following limits:

CENTRAL STATION.

North to Pearl street.	East to Union street.
South to Merrimack street.	West to Elm street.

NORTH MAIN STREET STATION.

North to Adams street.	East to Main street.
South to Granite street.	West to Dubuque street.

LAKE AVENUE STATION.

North to Manchester street.	East to Belmont street.
South to Summer street.	West to Maple street.

MAPLE-STREET STATION.

North to Myrtle street.	East to Linden street.
South to Hanover street.	West to Union street.

WEBSTER-STREET STATION.

North to Clarke street.	East to Union street.
South to Pennacook street.	West to Beauport street.

RIMMON-STREET STATION (MCGREGORVILLE).

North to Kelley street.	East to Beauport street.
South to Wayne street.	West to Rimmon street.

Drivers must confine themselves to the above, and in no case take their horses beyond the prescribed limits, except for shoeing and in case of fire, without permission from the chief or an assistant engineer.

In exercising, care must be taken to avoid colliding with other teams. In approaching corners, crossings, horsecar tracks, and in going down grades the speed of the horses must be checked.

In case of an alarm use gong freely while returning to quarters.

Any driver violating these rules will be liable to suspension or discharge.

The Sleeping Apartments.

The permanent men shall exercise a careful supervision over the sleeping apartments, see that the rooms are put in order and the beds made as early as 11 o'clock A. M., and that the bedding is changed at suitable intervals. The occupants of each bed will be held responsible for the cleanliness of the same, and held strictly accountable for any damage to either bed or bed clothing through carelessness. After 10 o'clock P. M. occupants shall refrain from loud talking or in any manner disturbing the rest of any who have retired.

Absence from Station.

No permanent member shall leave his station to visit any section of the city without permission of the chief or an assistant engineer, or leave the city, or be granted leave of absence, with-

out notifying the chief engineer and procuring a substitute to his acceptance, and the substitute shall be on duty before the applicant leaves his post.

Any call member expecting to be absent from the city shall notify the captain of his company, and before leaving the city shall procure a substitute satisfactory to said captain.

Any member of the department not complying with the above rules shall be liable to suspension or expulsion from the department.

Entering Buildings with Line of Hose.

All hose companies are instructed not to enter any building with a line of hose unless the stop nozzle is closed, except in cases where they can see the fire, and when their streams will reach it without damage to other property.

Steamer companies are not to enter a building with a line of hose without orders unless fire can be seen.

Captains of the several companies will be expected to report any violation of the foregoing rules to the board of engineers.

ESTIMATED VALUE OF PROPERTY.

Engine No. 1.

LOCATED ON VINE STREET.

1 first-size Amoskeag steamer	\$4,000.00
1 one-horse hose wagon	400.00
3 gray horses for steamer	685.00
1 gray horse for hose wagon	225.00
4 swinging harnesses	200.00
1 pair double exercise harnesses	50.00
1 single exercise harness	40.00
2,250 feet fabric hose	1,320.00
Stable fixtures, blankets, etc.	60.00

Tools, furniture, and fixtures	\$200.00
Firemen's suits and badges	200.00
Total amount	<u>\$7,410.00</u>

Engine No. 2.

LOCATED AT NORTH MAIN STREET, 'SQUOG.

1 second size Amoskeag steamer	\$4,000.00
1 hose wagon	600.00
1 exercise wagon, poles, shafts, and 3-horse hitch	340.00
3 bay horses for steamer	617.00
1 pair gray horses for hose wagon	450.00
3 exercise harnesses, 2 at \$40, 1 at \$20 . .	100.00
5 swinging harnesses	250.00
1 double sled	60.00
3,300 feet fabric hose	1,980.00
Stable fixtures and blankets	94.00
Furniture, fixtures, carpets, etc.	466.00
Firemen's suits and badges	150.00
Total amount	<u>\$9,107.00</u>

Engine and Ladder Co. No. 3.

LOCATED ON LAKE AVENUE, CORNER MASSABESIC STREET.

1 second-size Amoskeag steamer	\$3,500.00
1 two-horse truck and equipments	1,700.00
1 three-horse hitch attachment (extra) . .	200.00
1 pair black horses for steamer	417.00
1 pair bay horses for truck	400.00
1 single horse for hose carriage	150.00
3 exercise harnesses, 2 at \$50, 1 at \$40 . .	140.00
5 swinging harnesses	250.00
1 four-wheeled Amoskeag hose-carriage . .	600.00

1 double cart	\$125.00
1 single sled	40.00
2,700 feet fabric hose	1,620.00
Stable fixtures, blankets, etc.	50.00
Beds, bedding, carpets, hall furniture, etc.	575.00
1 exercise wagon	292.50
Total amount	<u>\$10,101.50</u>

Engine No. 4.

LOCATED ON VINE STREET.

1 first-size Amoskeag steamer	\$4,200.00
1 hose wagon	400.00
3 horses for steamer	600.00
1 horse for hose wagon	200.00
3 exercise harnesses	60.00
4 swinging harnesses	200.00
2,300 feet fabric hose	1,380.00
Hall furniture, beds, bedding, etc.	275.00
Stable fixtures and blankets	75.00
Firemen's suits and badges	150.00
Total amount	<u>\$7,540.00</u>

Engine No. 5.

LOCATED ON WEBSTER STREET, CORNER CHESTNUT.

1 third-size Amoskeag steamer	\$3,600.00
1 combination hose reel and ladder	1,000.00
1 pair bay horses	534.00
1 pair gray horses	400.00
1 double cart	75.00
1 double sled	50.00
2 pairs swinging harnesses	200.00

2 pairs exercise harnesses	\$150.00
2,500 feet fabric hose	1,500.00
Furniture, fixtures, tools, etc.	175.00
Stable fixtures and blankets	80.00
Firemen's suits, badges, etc.	150.00
<hr/>	
Total amount	\$7,914.00

E. W. Harrington Steam Fire Engine.

STORED AT CLINTON-STREET ENGINE HOUSE.

Old U tank Amoskeag engine (may be worth for ex- change)	\$500.00
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Engine and Ladder No. 6.

LOCATED AT CORNER AMORY AND RIMMON STREETS.

1 second-size Amoskeag steamer	\$3,500.00
1 hook-and-ladder truck (with Bangor extension)	1,680.00
1 one-horse carriage	600.00
2 gray horses for steamer	400.00
2 bay horses for truck	267.00
1 gray horse for hose carriage	200.00
5 swinging harnesses	250.00
2,000 feet fabric hose	1,200.00
Hall furniture, carpets, beds, bedding, etc.	375.00
Stable fixtures, blankets, etc.	85.00
Firemen's suits and badges	187.00
1 exercise wagon	290.50
<hr/>	
Total amount	\$9,035.50

Hose No. 1.

LOCATED ON VINE STREET.

1 four-wheeled Amoskeag hose carriage	\$600.00
2 horses	534.00

2 single harnesses	\$70.00
1 single cart	40.00
1 single sled	40.00
1 hose sled	20.00
2,150 feet fabric hose	1,290.00
500 feet leather hose	250.00
Furniture and fixtures	200.00
Stable fixtures and blankets	50.00
Firemen's suits and badges	175.00
Total amount	<u>\$3,269.00</u>

Hose No. 2.

LOCATED ON MAPLE STREET, CORNER EAST HIGH.

1 four-wheeled Amoskeag hose carriage	\$600.00
1 bay horse	100.00
1 exercise harness	30.00
1 swinging harness	50.00
1 single cart	50.00
2,000 feet fabric hose	1,200.00
2,000 feet leather hose	800.00
Furniture and fixtures	100.00
Firemen's suits and badges	175.00
Total amount	<u>\$3,105.00</u>

Hook-and-Ladder No. 1.

LOCATED ON VINE STREET.

1 aerial hook-and-ladder truck	\$4,200.00
3 horses	800.00
1 pair exercise harnesses	30.00
3 swinging harnesses	150.00
2 extra Bangor extension ladders	360.00

7 rubber blanket covers	\$168.00
Furniture and fixtures	200.00
Bed, bedding, and furniture	40.00
Stable fixtures and blankets	60.00
Firemen's suits and badges	280.00
<hr/>	
Total amount	\$6,288.00

Chemical Engine No. 1.

LOCATED ON VINE STREET.

1 double tank (60 gallons each) engine	\$2,250.00
1 pair black horses	400.00
1 pair exercise harnesses	50.00
1 pair swinging harnesses	100.00
Furniture and fixtures	75.00
Stable fixtures and blankets	50.00
Firemen's suits and badges	35.00
<hr/>	
Total amount	\$2,960.00

Supply Wagon.

1 supply wagon, with boxes and engineers' lanterns .	\$250.00
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Spare Hose.

AT CENTRAL STATION, VINE STREET.

800 feet leather hose	\$400.00
650 feet fabric hose	390.00
<hr/>	
Total amount	\$790.00

Exercise Wagon.

CENTRAL STATION, VINE STREET.

1 four-wheeled exercise wagon with pole, shafts, three-horse hitch, and coal boxes	\$350.00
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Engineers' Department.

5 fire hats	\$10.00
5 engineers' white rubber coats	37.50
Furniture and fixtures	175.00
<hr/>	
Total amount	\$222.50

Independent Hose Company No. 5.

LOCATED AT CORNER OF OLD FALLS ROAD AND FRONT STREET.

1 four-wheeled hose carriage	\$400.00
800 feet leather hose	300.00
2 hose-pipes, spanners, etc.	40.00
Furniture and fixtures	10.00
<hr/>	
Total amount	\$750.00

Goffe's Falls Hose Carriage.

LOCATED AT DEVONSHIRE MILLS.

1 two-wheeled hose-carriage	\$30.00
300 feet fabric hose	100.00
2 hose pipes	10.00
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Total amount	\$140.00

Sleeping-Hall.

AT CENTRAL STATION, VINE STREET.

7 beds, bedding, wardrobes, etc.	\$275.00
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Extra Horses.

1 horse at Central station for spare duty	\$200.00
1 black horse off duty	100.00
1 bay horse off duty	100.00
<hr/>	
Total amount	\$400.00

Fire Alarm Telegraph.

At cost, including additions previous to 1885	\$21,625.00
Remodeling in 1885	6,000.00
Additions in 1886	775.00
in 1887	375.00
in 1888	575.00
in 1889	430.00
in 1890	300.00
in 1891	280.00
in 1892	150.00
in 1893	500.00
in 1894	250.00
“Individual Tapper” system	3,000.00
Wire, ladders, arms, brackets, etc.	125.00
<hr/> Total	<hr/> \$34,385.00

Recapitulation.

Engine No. 1	\$7,410.00
Engine No. 2	9,107.00
Engine and Ladder No. 3	10,101.50
Engine No. 4	7,540.00
Engine No. 5	7,914.00
Engine and Ladder No. 6	9,035.50
Harrington Engine (old)	500.00
Hose No. 1	3,269.00
Hose No. 2	3,105.00
Hook-and-Ladder No. 1	6,288.00
Chemical Engine No. 1	2,960.00
Supply wagon	250.00
Spare hose	790.00
Exercise wagon (Central station)	350.00
Engineers' department	222.50
Independent Hose No. 5	750.00

Goffe's Falls Hose-Carriage	\$140.00
Sleeping Hall (Central station)	275.00
Extra horses	400.00
Fire-Alarm Telegraph	34,385.00
Total	<u>\$104,795.50</u>

Names and Residences of the Members of the Fire Department.

BOARD OF ENGINEERS.

Badge No.	NAME.	Rank.	Occupation.	Residence.
1	Thomas W. Lane	Chief		1937 Elm.
2	Fred S. Bean	Asst. and clerk	Machinist	102 Orange.
3	Ruel G. Manning	Assistant	Carpenter	55 Douglas.
4	Eugene S. Whitney	"	Supt. Elec. Light	N. River road.
5	Clarence R. Merrill	"	Grain dealer	414 Merrimack

ENGINE COMPANY NO. 1.

House, 28 Vine Street.

Badge No.	NAME.	Rank.	Occupation.	Residence.
7	Charles F. McCoy.....	Captain.....	Machinist.....	50 M. S. B.
8	Frank E. Stearns.....	Lieutenant....	Paper hanger ...	389 Lake ave.
18	James L. Brock.....	Clerk.....	Tinsmith	21 Market.
6	Charles F. Hall.....	Engineer	Engineer	28 Vine.
13	Joseph H. Gould.....	Asst. Engineer	Machinist.....	8 Prospect.
11	Charles H. Rogers ...	Driver engine..	Teamster	28 Vine.
12	Artemas C. Barker...	Driver hose....	"	28 Vine.
43	Frank B. Marston....	Hoseman	Carpenter	14 M. S. B.
17	Henry C. Parsons	"	Auctioneer	6 Prospect.
15	Thomas J. Wyatt.....	"	Carpenter	973 Elm.
19	George E. Badger....	"	Steam-fitter	Upper Canal.
9	Lewis G. Bryant.....	"	Carpenter.....	1451 Elm.
10	Fred A. Lang.....	"	Machinist.....	28 Vine.
14	Nelson C. Whitney ...	"	Gas-fitter	1269 Elm.

ENGINE COMPANY NO. 2.

House on North Main Street, 'Squog.

Badge No.	NAME.	Rank.	Occupation.	Residence.
67	David G. Mills	Captain.....	Contractor.....	607 Granite.
71	Charles G. Ranno....	Lieutenant ...	Harness-maker..	63 Parker.
76	Jeremiah Lane	Clerk and driver engine ..	Teamster	210 No. Main.
120	Harry C. Morrill.....	Engineer	Engineer	226 No. Main.
119	Stephen Thomes.....	Asst. engineer.	Carpenter	55 Douglas.
69	Arthur W. Whitcomb.	Driver of hose.	Teamster.....	151 Douglas.
72	Samuel A. Hill	Hoseman	Carpenter	86 School.
75	Robert J. Hill	"	Carpenter	86 School.
77	Daniel B. Emery.....	"	Machinist.....	Williams.
73	Charles S. Cousins....	"	Harness-maker..	323 Douglas.
74	Thomas C. Foote.....	"	Wool sorter	56 No. Main.
66	Joseph H. Alsop.....	"	Wool waste sort'r	54 Douglas.
70	Chas. M. Tewksbury..	"	Asst. Yard Mast'r.	113 Parker.
68	George P. Ames.....	"	Supt. Streets ...	226 No. Main.

ENGINE AND LADDER COMPANY NO. 3.

House on Lake Avenue, corner Massabesic.

Badge No.	NAME.	Rank.	Occupation.	Residence.
86	Frank F. Porter.....	Captain.....	Manufacturer ...	330 Spruce.
82	Lyman W. Piper.....	Lieut. engine .	Dresser.....	Engine house.
98	John N. Chase.....	Lieut. of truck	Overseer.	268 Bridge.
83	Ernest E. Hubbell...	Clerk.....	Clerk.....	417 Central.
121	George B. Forsaith...	Engineer.....	Engineer	Engine house.
122	John P. Walker....	Asst. engineer	Machinist	352 Lake ave.
87	George H. Wheeler ...	Driver engine..	Teamster.....	Engine house.
81	William S. McLeod...	Driver hose...	"	" "
80	Ernest L. George.....	Driver truck...	"	" "
79	Louis N. Dufrain.....	Fireman	Plumber.....	273 Hall.
89	Parker R. Brown.....	"	Clerk.....	422Merrimack.
78	George Dunnington...	"	Harness-maker .	510 Wilson.
88	Fred S. Sloan.....	"	Painter	132Massabesic.
114	John Wilson.....	"	Carpenter	19 Warren.
110	Albert W. Smith	"	Clérk.....	532 Lincoln.
148	Orrin S. Coburn.....	"	"	383 Central.
105	Carl K. Beadle	"	"	380 Spruce.
97	Edwin C. Paul.....	"	Collector.....	372 Lake ave.
85	John W. Finn.....	"	Painter	317 Cedar.
84	Walter M. Moulton ...	"	Plumber.....	307 Amherst.

ENGINE COMPANY NO. 4.

House, No. 20 Vine street.

Badge No.	NAME.	Rank.	Occupation.	Residence.
20	Lucius B. Snelling....	Captain.....	Pharmacist.....	103 Walnut.
28	John H. Wales, Jr....	Lieutenant....	Brick mason	19 M. S. B.
33	Thomas W. Lane, Jr..	Clerk.....	Electrician	1937 Elm.
21	Edgar G. Abbott.....	Engineer	Engineer.....	20 Vine.
32	Benj. R. Richardson..	Asst. Engineer	Machinist.....	12 M. S. B.
31	Frank J. Dustin.....	Driver engine..	Teamster	20 Vine.
29	Ellsworth V. Rowe....	Driver of hose.	Manufacturer ...	20 Vine.
22	Walter A. Clarkson...	Hoseman	Carpenter..	98 Sagamore.
25	Frank B. Stevens	"	Clerk	20 Gore.
27	Edward Sargent	"	Machinist	20 Vine.
24	Edward C. Gould	"	Clerk.....	258 East High.
26	Irving S. Bryant.....	"	Manufacturer ...	582 Chestnut.
23	George Thompson....	"	Clerk.....	85 Walnut.
30	Frank Sargent	"	Steam fitter	56 Water.

ENGINE COMPANY NO. 5.

House, No. 44 Webster Street.

Badge No.	NAME.	Rank.	Occupation.	Residence.
49	Charles W. Brown....	Captain.....	Clerk.....	16 Hazel.
101	Milo B. Wilson	Lieutenant....	Mason	48 Blodget.
46	Woodbury Davison ...	Clerk.....	Carpenter.....	817 Union.
42	Daniel W. Morse.....	Engineer	Engineer.....	1419 Elm.
102	Walter Morse.....	Asst. engineer.	Machinist.....	831 Union.
125	Emil H. Smith.....	Driver engine.	Teamster.....	44 Webster.
124	Henry S. Reed.....	Driver hose ...	"	44 Webster.
47	Russell L. Cilley.....	Hoseman	Clerk.....	863 Chestnut.
95	Edward H. Clough ...	"	"	859 Chestnut.
41	Arthur A. Smith.....	"	Blacksmith.....	11 W. Applet'n.
126	Alvin McLane.....	"	Carpenter	15 Liberty.
108	Edwin L. Towle.....	"	Clerk.....	62 Webster.
123	Charles H. Gile.....	"	Carpenter	896 Union.
99	Will G. Fraser.....	"	Lithographer ...	54 Pennacook.

ENGINE AND LADDER COMPANY NO. 6.

House on Amory and Rimmon Streets.

Badge No.	NAME.	Rank.	Occupation.	Residence.
128	George A. Whitney...	Captain.....	Manufacturer...	79 Conant.
129	John Martin	Lieut. engine..	Machinist.....	624 Main.
130	Thomas E. Gorman...	Lieut. truck...	Section hand ...	169 Cartier.
131	Michael J. F. Connor	Clerk....	Clerk.....	239 Beauport.
132	Edwin E. Weeks.....	Engineer.....	Engineer	Rimmon.
133	Aleide Provencher ...	Asst. engineer.	Machinist.....	1275 Elm.
134	Alphonso E. Foster...	Driver engine.	Carpenter	Rimmon.
135	George A. Cann.....	Driver hose ...	Piper.....	Rimmon.
136	Henry C. Crosby.....	Driver truck..	Teamster.....	Rimmon.
137	Fred S. Morrill.....	Hoseman	Belt-maker.....	58 Douglas.
138	Thos. F. Fitzsimmons	"	Painter	258 Beauport.
139	Arthur A. Lamoreaux	"	Grocer....	114 School.
140	Frank W. Tibbetts....	"	Section-hand ...	312 Cartier.
141	John J. Conroy.....	"	Blacksmith.....	268 Beauport.
142	Frank St. John.....	"	Marble finisher..	5 Barr.
143	Henry Stein.....	"	Blacksmith.....	Hevey.
144	Arthur Provost	"	Wool sorter.....	516 Beauport.
146	Heber C. Sleeper.....	"	Machinist.....	4 Monmouth.
147	James A. Farley.....	"	"	385 Dubuque.
145	John E. Herring.....	"	Meehanic.....	164 Beauport.

HOSE COMPANY NO. 1.

House, No. 26 Vine Street.

Badge No.	NAME.	Rank.	Occupation.	Residence.
52	Charles B. French.....	Captain.....	Carpenter	39 M. S. B.
36	Joseph E. Merrill.....	Lieutenant....	Currier.....	21 Ash.
50	Frank D. Burleigh.....	Clerk	Carpenter.....	1405 Elm.
37	Walter L. Blenus.....	Driver.....	Teamster	26 Vine.
38	George H. Porter.....	Hoseman.....	Carpenter	279 Laurel.
48	Albert A. Puffer.....	"	Railr'd employee	499 Beech.
53	John E. Sanborn.....	"	Carpenter	274 Laurel.
35	Samuel W. Patten.....	"	Belt maker	3 M. S. B.
45	George I. Ayer	"	Electrician.....	28 M. S. B.
51	Edwin W. Merrill	"	Clerk	21 Ash.
34	Charles J. Wiley	"	Mechanic.....	Elliot & Means block.
39	Asa W. Gage.....	"	Electrician	239 Beauport.

HOSE COMPANY NO. 2.

House on Maple Street, corner East High.

Badge No.	NAME.	Rank.	Occupation.	Residence.
54	John F. Seaward.....	Captain	Carpenter	27 Warren.
55	Revilo G. Houghton..	Lieutenant	Gas fitter	288 Bridge.
58	Henry G. Seaman ...	Clerk	Carpenter	14 South.
57	Walter Seaward	Driver.....	Teamster	521 Maple.
59	Jos. W. Batchelder ...	Hoseman.....	Carpenter	521 Maple.
64	Frank O. Moulton....	"	Clerk.....	211 Bridge.
62	Julien B. Hantley....	"	Plumber.....	35 Dutton.
60	Charles W. Powell....	"	Carpenter	540 Maple.
61	Addison Seaward.....	"	"	255 Bridge.
56	Arthur B. Merrill.....	"	"	62 Lake ave.
63	James A. Rogers	"	"	761 Beech.
65	John M. Emerson.	"	Plumber.	29 Dutton.

CHEMICAL ENGINE COMPANY NO. 1.

House, No. 8 Vine Street.

Badge No.	NAME.	Rank.	Occupation.	Residence.
116	George N. Burpee....	Captain.....	Electrician	19 Ash.
117	Warren F. Wheeler...	Clerk & driver	Teamster.....	8 Vine.
118	Frank H. Harvey.....	Pipeman.....	"	546 Chestnut.
116	Edward A. Sears.....	Fireman	Electrician.....	r. 247 Concord.
44	Benjamin C. Cann*...	"	Teamster.....	542 Chestnut.

HOOK-AND-LADDER COMPANY NO. 1.

House, No. 18 Vine Street.

Badge No.	NAME.	Rank.	Occupation.	Residence.
91	Jerome J. Lovering ..	Captain.....	Carpenter.....	300 Pine.
111	Roscoe Dyer.....	Lieutenant...	Machinist.....	46 Stark.
90	Henry Johnson	Clerk	Steam-fitter	298 Hanover.
94	Charles M. Denyon ...	Driver	Teamster.....	18 Vine.
96	James Orrill.....	Fireman	Barber.....	100 Blodget.
92	Oscar P. Stone	"	Clerk.	312 Manchestr
104	Harrison H. Cole	"	Carpenter	45 M. S. B.
109	George M. Jones.....	"	Gardener	25 Prospect.
107	Henry Heap.....	"	Manufactnrer ...	18 Vine.
113	Charles H. Laxon.....	"	Carpenter	20 M. S. B.
106	Charles Edgar	"	"	16 M. S. B.
100	Frank M. Frisselle....	"	Reporter.....	478 Beech.
112	Charles A. Butterfield	"	Carpenter	951 Elm, R. 18.
118	Frank A. Pherson....	"	Machinist.....	18 Vine.
93	Fred W. Bond.....	"	Loom fixer.....	54 Stark.

* Detailed as driver of supply wagon.

REPORTS
OF THE
TRUSTEES OF CEMETERIES
AND
CEMETERY FUNDS.

REPORT

OF THE

TRUSTEES OF THE CEMETERY FUND.

To the City Councils of the City of Manchester:

GENTLEMEN,—The Trustees of the Cemetery Fund have the honor to present their fifteenth annual report, embracing the report of their treasurer, which shows in detail the financial operations for the year ending December 31, 1894, as well as the condition of the fund at present. There has been very little work done the past year beyond the care of the lots endowed in perpetuity. The income has been sufficient to do this and leave some in the hands of the treasurer, which will be seen by his report. It has been the policy of the trustees to allow this to accumulate in order that they may be prepared to meet any emergency that may suddenly arise, and to improve and beautify the grounds to such a degree as the funds will allow, and as time moves on the funds will naturally increase in amount and it is hoped to such an extent that the trustees will not lack for means to keep the lots in a condition that will be most gratifying to their owners and representatives.

Respectfully submitted.

BYRON WORTHEN, MAYOR, *ex officio*,
P. C. CHENEY,

Trustees of Cemetery Fund.

TREASURER'S REPORT.

To the Trustees of the Cemetery Fund :

GENTLEMEN,— I herewith transmit to you the twelfth annual report of the funds received and expenses paid to December 31, 1894.

Pine Grove Cemetery.

Amount of permanent fund on hand January 1, 1894 \$19,651.01

Received during the year :

From Edward Wagner	\$391.00
Horace Pettee	9.00
Mrs. Frances B. Pettee	9.00
Moses N. Smith	141.25
Henry W. Boutwell	187.50
George A. Hackett	104.75
Marcellus Gould	180.00
Lucien B. Clough	97.46
Henry W. Boutwell	75.00
J. H. Parmerton	162.00
Mary A. Smith estate	200.00
Hattie A. Corey	82.95
Thorndike P. Heath	146.20
Ephraim K. Rowell	499.88
H. H. Dustin	180.00
Mrs. George P. and Frank A. James	150.00
Edwin P. Richardson	161.77
Samuel H. Mead	180.00
Erastus M. Kellog	94.50
George Bisco	300.00

REPORT OF THE TRUSTEES OF CEMETERY FUNDS. 305

From Samuel Brooks estate	\$150.00	
Samuel S. Raymond	150.00	
Mary J. James	99.95	
Eliza A. Schofield	82.13	
J. A. Rogers	332.81	
Betsey M. Hannaford estate	230.84	
T. Frank Dickey	180.00	
	<hr/>	\$4,577.99

Total permanent fund December 31, 1894. \$24,229.00

Income on hand January 1, 1894 . .	\$1,078.68	
Income received during the year . .	1,006.45	
	<hr/>	\$2,085.13

Expenses paid during the year :

E. T. James	\$8.13	
S. A. Blood	4.75	
J. B. Varick Co.	10.00	
B. A. Stearns, superintendent	521.50	
Cash on hand	1,540.75	
	<hr/>	\$2,085.13

Valley Cemetery.

Amount of permanent fund on hand January 1, 1894 \$6,944.23

Received during the year :

From Harriet M. A. Foster estate	\$300.00	
Charles Hutchinson estate	180.00	
John P. Ankarloo estate	225.00	
	<hr/>	\$705.00

Total permanent fund December 31, 1894. \$7,649.23

Income on hand January 1, 1894	\$463.02	
Income received during the year	377.83	

Total income December 31, 1894 . . . \$840.85

Expenses paid during the year :

C. H. G. Foss, superintendent	\$193.96	
Cash on hand	<u>646.89</u>	\$840.85

Piscataquog Cemetery.

Amount of permanent fund on hand January 1, 1894	\$300.00
Amount of permanent fund on hand December 31, 1894	300.00
Income on hand January 1, 1894	\$46.08
Income received during the year	<u>15.00</u>
Total income on hand December 31, 1894	\$61.08

Merrill Cemetery.

Amount of permanent fund on hand January 1, 1894	\$200.00
Amount of permanent fund on hand December 31, 1894	200.00
Income on hand January 1, 1894	\$24.00 .
Income received during the year	<u>10.00</u>
Total income on hand December 31, 1894	\$34.00

Expenses paid during the year :

B. A. Stearns, superintendent, for grading lots	\$13.25	
Cash on hand	<u>20.75</u>	\$34.00

SYLVANUS B. PUTNAM,

Treasurer of the Cemetery Fund.

This is to certify that I have examined the books of accounts of Sylvanus B. Putnam, treasurer of the trustees of the cemetery

fund, embracing the receipts and expenditures for the year 1894, and I find the same correct and properly vouched. I have also examined the securities in which said fund is invested, and find as follows :

PINE GROVE CEMETERY.

Bonds of the city of Manchester, N. H.

5 per cent, 1913	\$14,700.00
5 per cent, 1943	9,000.00
Cash on hand	529.00

Total amount of bonds and cash . \$24,229.00

Total amount of permanent fund \$24,229.00

VALLEY CEMETERY.

Bonds of the city of Manchester, N. H.

5 per cent, 1913	\$4,800.00
5 per cent, 1943	2,000.00
Cash on hand	849.23

Total amount of bonds and cash . \$7,649.23

Total amount of permanent fund \$7,649.23

PISCATAQUOG CEMETERY.

Bonds of the city of Manchester, N. H.

5 per cent, 1913	\$300.00
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Total amount of permanent fund \$300.00

MERRILL CEMETERY.

Bonds of the city of Manchester, N. H.

5 per cent, 1913	\$200.00
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Total amount of permanent fund \$200.00

JAMES E. DODGE,
City Auditor.

REPORT

OF THE

TRUSTEES OF CEMETERIES.

Pine Grove Cemetery.

The sub-committee of the trustees of the Pine Grove cemetery submit the following report :

During the past year the cemetery grounds have been enlarged by the addition of the Howlett lot on the north, containing ten acres, purchased at the cost of \$4,400. The buildings have been repaired at an expense of \$645, and are occupied by the superintendent of the grounds at a rental of \$11 per month. Iron-frame settees have been placed upon the grounds, costing about \$100. Two hundred feet of fence have been built upon the east side of the grounds, and no less amount should be constructed each year until the whole is inclosed.

Substantial progress has been made in the development of Chapel Lawn, on which eight lots have been graded and sold. Landscape Lawn having been entirely sold, a rapid sale of the lots upon this beautiful elevation may be expected until this new source of supply is exhausted. Riverside Lawn and Pine Lawn, also under perpetual care, will supply the demand in the southern section of the grounds for a considerable time to come.

The extensions of the Pine Grove cemetery north and north by the purchase of the Webster and Howlett places, while not affording all the area that may some day be needed, yet will supply the demand for many years to come.

There is still due upon the Howlett purchase \$3,400, which should be provided for by a special appropriation.

C. H. BARTLETT,
For the Committee.

Valley Cemetery.

The sub-trustees of the Valley cemetery respectfully submit the following report for the year 1894:

RECEIPTS.

Appropriation	\$3,000.00
Tomb fees	213.00
Interments	159.00
Removals	21.00
Care and water	1,061.65
Labor and materials	359.99
	<hr/>
	\$4,814.64

EXPENDITURES.

Paid labor of men as per pay-roll	\$1,947.16
B. B. Bascomb, team, loam, sand, and manure	191.03
S. S. Piper, postage	1.09
E. J. Knowlton, postage	2.43
Temple & Farrington Co., book and stationery	11.50
Manchester Hardware Co.	12.35
C. E. Forbes, ladder	2.00
H. M. Hall, loam	15.50
Pike & Heald Co., piping, etc.	87.04
S. Lovejoy	1.00
A. L. Aldrich . . . . .	.20
M. S. & R. Co., phosphate	7.50
P. O. Woodman, loam and turf	11.45
J. Hodge, lumber	1.46
J. B. Varick Co., hardware	23.44
telephone	26.60
Neil Fullerton, team and loam	12.52
A. L. Bixby, labor and lumber	60.17
W. H. Tibbetts, painting	127.71
J. Francis, plants	53.50
H. H. Huntress, plants	14.95

Paid Manchester Water-Works	\$125.70
A. G. Hood, plants and loam	32.28
T. Foley, labor on tomb	12.00
William Berwick, team	12.30
Wadleigh Hardware Co., hardware	7.35
A. E. Osgood, manure	12.00
J. T. Underhill, concrete	64.49
J. E. Larkin, piping	93.35
F. X. Chenette, team	2.00
J. J. Abbott, glass . . . .	.95
	<hr/>
	\$2,973.02
Amount transferred to reserved fund	26.98
	<hr/>
	\$3,000.00
Paid S. B. Putnam, city treasurer	1,814.64
	<hr/>
	\$4,814.64

At a meeting of the trustees in the spring, the superintendent was instructed to have the buildings and bridges painted, which was done early in the season. The tomb has been whitewashed inside and the racks, doors, and fence in front have been painted.

On examination it was found that one of the foot-bridges was so far decayed that it could not be repaired, and a new one was erected to take its place.

About 350 feet of 2-inch and 50 feet of $1\frac{1}{4}$ -inch pipe have been laid and water has been carried to six lots. Meadow path from the Valley to Pine avenue, and Dell path from Valley to Pine path have been concreted. Grading has been continued on the south bank of the valley west of the Gillis tomb — 325 loads of sand, 102 loads of loam used. It will require about 50 loads more to complete the bank.

On account of the springs in the bank, we had to lay 75 feet of 6-inch pipe to drain the water. The old 8-inch pipe running down past the tombs became filled with willow roots so that no

water would go through. Forty feet have been taken up and re-laid with 12-inch pipe.

The grass has been cut twice, which adds somewhat to the expense but is a decided improvement to the looks of the cemetery.

There have been 62 interments, 12 removals, and 52 placed in the tomb. Several beautiful and costly monuments have been erected.

The grounds have been kept in the usual good condition under the care of C. H. G. Foss, who this year completes his tenth year as superintendent.

R. J. BARRY,
BUSHROD W. HILL,
Sub-Trustees of Valley Cemetery.

TREASURER'S REPORT.

To the Trustees of Cemeteries :

GENTLEMEN,— I herewith present to you my annual report of the money received by me during the year ending December 31, 1894:

Pine Grove Cemetery.

Number of deeds delivered during the year, eighty.

To cash received for the same	.	.	\$3,461.00	
interest	.	.	24.01	
cash received from superintendent	.		2,396.97	
			<hr/>	\$5,881.98

CR.

By treasurer's receipts	.	.	.	\$3,485.01	
superintendent's receipts	.	.	.	2,396.97	
				<hr/>	\$5,881.98

Valley Cemetery.

To cash received from superintendent	.	.	.	\$1,814.64
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CR.

By treasurer's receipts	\$1,814.64
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All money received by me has been turned into the city treasury, and a detailed account of the expenditure of the same will be found elsewhere.

I have in my possession thirty-six deeds ready for delivery, all

of which will soon be taken with a few rare exceptions, and these cases will undoubtedly have to receive the especial action of your successors next year or at some future time, for occasionally one is not able to complete the contract, or will not, as sometimes is the case.

Most respectfully submitted.

SYLVANUS B. PUTNAM,

Treasurer.

I hereby certify that I have examined the accounts of Sylvanus B. Putnam, treasurer of the trustees of cemeteries, and find the same correctly cast and properly vouched for.

JAMES E. DODGE,

City Auditor.

REPORT
OF THE
OVERSEERS OF THE POOR.

REPORT

OF THE

OVERSEERS OF THE POOR.

To the Mayor, Aldermen, and Common Council of the City of Manchester :

In compliance with the ordinance of said city, the Overseers of the Poor herewith present their annual report for the year 1894. The whole number of families that has received more or less assistance off the farm during the year has been ninety, consisting of four hundred and fifty persons, all of whom have a settlement in this city. Six of this number died during the year. The whole number of paupers supported at the city farm during the year has been three more or less of the time. The whole number of paupers supported at the county farm during the year has been five, at a cost of two dollars per week for each person.

The whole number of persons supported at the State Industrial School during the year has been six, at a cost of one dollar and fifty cents per week for each person.

The whole number of paupers supported at the St. Patrick's Orphans' Home has been two, at a cost of one dollar and twenty-five cents per week for each person.

The whole number of paupers supported at the St. Patrick's Old Ladies' Home has been one, at a cost of two dollars per week.

The whole number of paupers supported at the Orphans' Home, Franklin, has been one, at a cost of one dollar per week, clothing included.

The Overseers of the Poor have given and allowed nine hundred and four orders to the paupers off the farm during the year, the largest number in the history of the city. Said orders consisted chiefly of orders for groceries, fuel, medicine, board and care, clothing, and emergencies.

The whole amount allowed to the several persons who applied for assistance from time to time from the several wards of the city during the year was as follows :

Ward 1	\$142.75	
Ward 2	252.63	
Ward 3	478.29	
Ward 4	985.41	
Ward 5	2,454.66	
Ward 6	606.52	
Ward 7	229.58	
Ward 8	1,057.39	
Ward 9	690.40	
	<hr/>	\$6,897.63

MISCELLANEOUS BILLS ALLOWED.

State Industrial School, board of inmates	\$2,964.44	
Books and stationery	29.46	
	<hr/>	\$2,993.90
Total cost		<hr/>
		\$9,891.53

Cash received from the county of Hillsborough for
board of inmates of State Industrial School and
paid to the city treasurer \$2,730.44

Total expense to the city \$7,161.09

All of which is respectfully submitted.

WILLIAM H. MAXWELL, Ward 1, *Clerk of Board*,
THOMAS L. QUIMBY, Ward 2,
BENJ. F. GARLAND, Ward 3,
G. S. HOLMES, Ward 4,
PATRICK COSTELLO, Ward 5,
CHARLES FRANCIS, Ward 6,
WILLIAM MARSHALL, Ward 7,
CHARLES S. MCKEAN, Ward 8,

Overseers of the Poor for the City of Manchester.

A true copy. Attest :

WILLIAM H. MAXWELL,
Clerk of the Board.

*To the Mayor, Aldermen, and Common Council of the city of
Manchester :*

In compliance with chapter 81, sections 1 and 2, Laws of the state of New Hampshire, passed at the June session, 1881, the Overseers of the Poor herewith present their annual report under the head of "Aid to soldiers and sailors and their dependent families," for the year 1894.

The whole number of indigent soldiers and sailors who have had more or less aid during the year has been ten, consisting of

four families, all of whom have a settlement in this city, at a total cost of \$274.

All of which is respectfully submitted.

WILLIAM H. MAXWELL, Ward 1, *Clerk of Board*,
THOMAS L. QUIMBY, Ward 2,
BENJ. F. GARLAND, Ward 3,
GEORGE S. HOLMES, Ward 4,
PATRICK COSTELLO, Ward 5,
CHARLES FRANCIS, Ward 6,
WILLIAM MARSHALL, Ward 7,
CHARLES S. MCKEAN, Ward 8,
FRANK I. LESSARD, Ward 9,

Overseers of the Poor.

A true copy. Attest :

WILLIAM H. MAXWELL,
Clerk.

REPORT
OF THE
JOINT STANDING COMMITTEE
ON CITY FARM.

JOINT STANDING COMMITTEE ON CITY FARM.

To His Honor the Mayor and City Councils of the City of Manchester :

GENTLEMEN,—The Joint Standing Committee on City Farm hereby submit to you their annual report for the year ending December 31, 1894.

Having fairly and impartially appraised all personal property at the farm, we find the summary as follows :

Live stock	\$2,627.00
Wagons, carts, and team furnishings	1,381.00
Farming implements	817.00
Hay, grain, and produce	4,174.30
Household furniture	2,414.72
Provisions and fuel	658.35
	<hr/>
	\$12,072.37

Following is a list of the crops the past season, not including the amount used through the summer and fall :

Second crop hay	1 ton.
No. 1 English hay	62 tons.
Meadow hay	10 “
Cow fodder	25 “
Oat straw	16 “
Celery	600 bunches.
Corn	1,025 bushels.

Oats	200 bushels.
Blood beets	80 "
Mangold beets	1,000 "
Cabbage	10 tons.
Carrots	175 bushels.
Turnips	156 "
Onions	30 "
Potatoes	500 "
Parsnips	5 "
Squashes	1 ton.
Popcorn	19 bushels.
Sweet corn	20 "
Seed potatoes	10 "
Apples	50 barrels.

Among the permanent improvements at the farm we have put city water in the house for use when the well gives out. We have built a large shed, 20 x 40 feet, for wagons, and also a house for a hose carriage, with 500 feet of new hose and a reel from the Central Fire Station placed there in case of fire. In the house we have placed the Emergency Fire Extinguisher, and we are now well equipped in case of fire.

We have got $2\frac{1}{2}$ acres of pasture into grass this fall, and worked about 4 acres more of the pasture, pulled the stumps and blasted the large stone, which will be put in good shape another year.

Another ditch has been put in the field west of Mammoth road, from Bridge to Lowell streets.

The lumber on the Young road, which was decaying from the effects of fire running through it, has been cut off. This was sawed on the lot and sold, to be paid for in 1895.

The garbage collected is fed, the best of it, as last year, and the remainder is used for dressing the land. We have collected nearly 1,800 loads the last year, which requires three teams.

With the high pressure water service, and a hydrant within 150 feet of the buildings, the committee thinks that the rate of

insurance should be reduced. We are thankful to Mrs. Dunlap, Mrs. Kinsley, and others of the W. C. T. U., for the large amount of reading matter furnished the prisoners. They have also held two Sunday services and furnished each prisoner with flowers.

ALFRED D. MAXWELL,

GEORGE W. REED,

D. A. MURPHY,

W. D. WHEELER,

JOHN J. RYLANDER,

Joint Standing Committee on City Farm.

REPORT OF THE CITY SOLICITOR.

REPORT OF THE CITY SOLICITOR.

Gentlemen of the City Councils :

The following is the report of the doings of the city solicitor's office for '1894 :

The actions *Alice Chamberland v. Manchester* and *Carl C. Koehler v. Manchester* were tried by jury, and verdicts rendered in favor of the city. In *James A. Neal v. Manchester* the plaintiff withdrew after the trial of the foregoing cases.

The cases *Executrix of H. C. Canney v. Manchester*, *S. H. Dunbar v. Manchester*, *Augusta Currin v. Manchester*, *C. H. Bodwell v. Manchester*, *T. E. McDerby v. Manchester*, *Janet B. White v. Manchester*, *S. S. James and others v. Manchester*, *Hannah E. Welch and others v. Manchester*, and *D. W. Perkins v. Manchester*, were disposed of out of court by agreement with the plaintiffs.

The cases of *Sarah B. Woodman v. Manchester* and *J. T. Donahoe v. Manchester* were decided in favor of the plaintiffs by the court upon agreed statements of facts, there being no dispute as to amount due, in either case, if anything could be recovered.

The appeals from awards of damages by the mayor and aldermen made by Edwidge Eno, Louis St. John, Joseph Trudeau, George R. Vance, Charles P. Still, and Flora A. Woodman, executrix, were tried by the county commissioners and the amounts of their awards paid. William E. Moore withdrew his appeal. The appeal of A. Seigny was tried by the commissioners, but their decision has not yet been filed.

The following cases previously reported are still pending in court :

Campbell & Maxwell v. Manchester, A. Blood and others v. Manchester and the Manchester Electric Light Co., Manchester v. Jenkins and bondsmen, D. H. Dickey v. Manchester, Mary Dickey v. Manchester, Manchester v. Warren & Beede, Elvira Severance v. Manchester, Mary E. Reed v. Manchester, Charles Williams v. Manchester, W. E. Dunbar v. Manchester, G. H. Dunbar v. Manchester, Mary G. Carvelle v. Manchester, Rebecca Garmon v. Manchester, Lucie A. Clough v. Manchester, Batchelder & Clarks v. Manchester, Matters arising from controversy over new passenger railroad station, and D. C. Whittemore and others v. Manchester. With the exception of the first two cases, all these in which city is defendant are for damages by the water-works or by land taken for new highways.

The following new cases were begun during the year :

Seth T. Hill v. Manchester, to recover balance claimed to be due on settlement of account as collector of taxes.

W. W. Owen v. Manchester and Sarah E. Butterfield v. Manchester, for damages occasioned to property of plaintiffs by the alleged overflowing or backing up of city sewers.

Patrick Kendrigan v. Manchester, for damages for injuries received by caving in of a sewer trench in which plaintiff was employed.

The petition of George A. Farwell and others for a new highway in Manchester and Auburn.

And *Devonshire Mills v. Manchester*, for damages for diverting water of Cohas brook by the city water-works.

Samuel T. Page, The Elliot Hospital, and Lucie A. Clough have also filed appeals from awards of damages by the mayor and aldermen for land taken for new highways.

The city, through its board of water commissioners, have begun proceedings to condemn all the land bordering Lake Massabesic in Hillsborough county, not already owned by the city, and these proceedings are pending before the county commissioners.

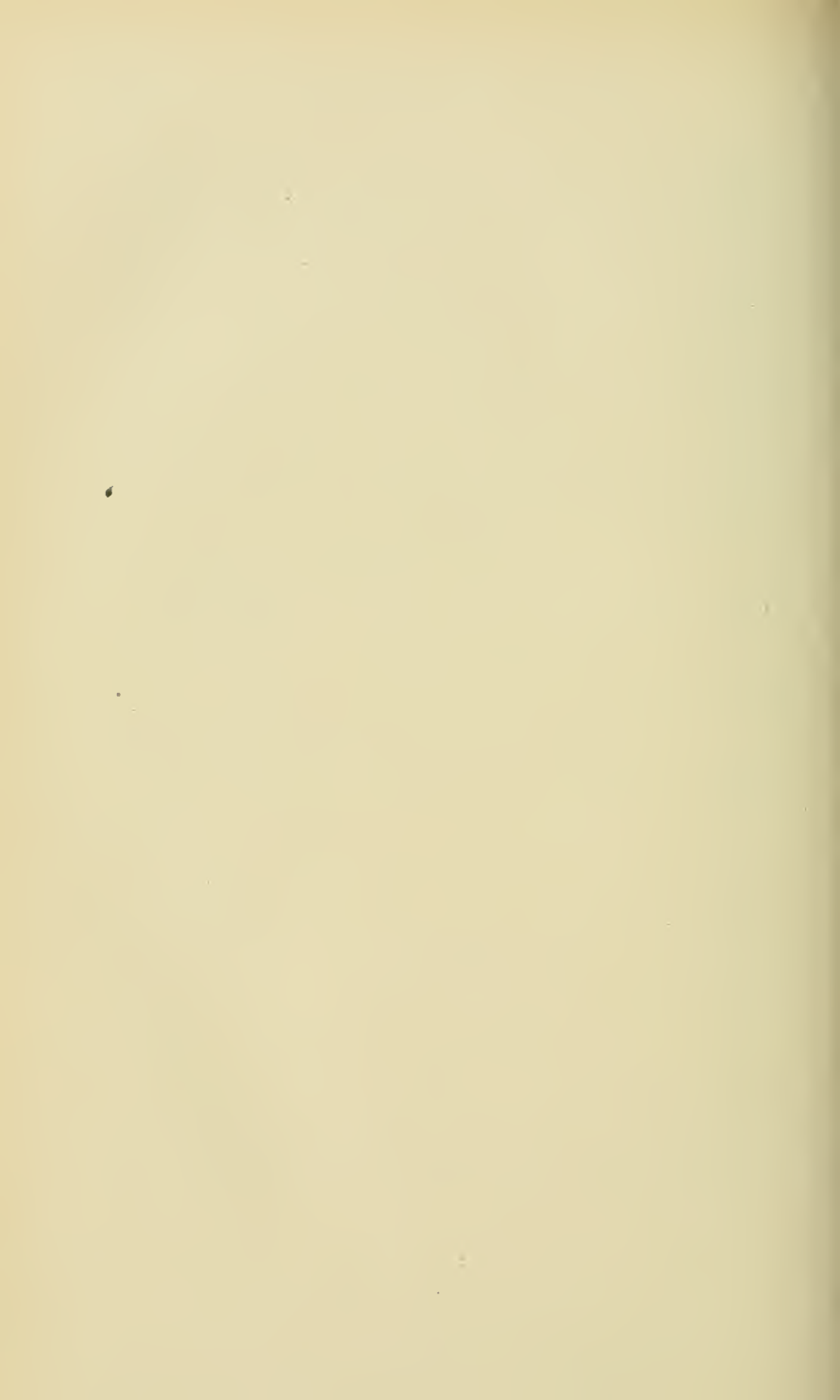
As stated in my last report, the two principal causes of all

existing litigation are claims for damage by flowage and other diversions of the water of Lake Massabesic and Cohas brook by the water-works system of the city, and appeals from awards for damages to land by the laying out of new streets or the changing of grades of existing highways. The matter of damages by the water-works system must be faced, and while the amount of money involved may be large, the matter in controversy is of so great importance, involving the control of the water of the lake and brook, and the preservation of the purity of the water for the uses of our whole population, that few, if any, will complain of the money expended; and the other class of cases simply shows the need of greater care by boards of mayor and aldermen in laying out and changing highways.

Respectfully submitted.

EDWIN F. JONES,

City Solicitor.



REPORT OF THE CITY PHYSICIAN.

REPORT OF CITY PHYSICIAN.

To His Honor the Mayor and Gentlemen of the City Councils :

I herewith submit my report of such of the city poor as came under my care for the year ending December 31, 1894:

Number of cases treated, 121; number of calls made, 1,511.

Diseases treated: Alcoholism, 1; blood poisoning, 1; bronchitis, acute, 2; bronchitis, chronic, 2; cerebral hemorrhage, 1; croup, 2; cholera morbus, 4; concussion of brain, 1; delirium tremens, 15; diphtheria, 1; heart disease, 2; housemaid's knee, 1; insane, 1; neuralgia, 1; laryngitis, 1; measles, 1; marasmus, 2; la grippe, 12; miscarriage, 1; pneumonia, croupous, 1; pneumonia, broncho, 1; pneumonia, hypostatic, 1; phthisis pulmonalis, 7; pleuritis, 3; pertussis, 2; poisoning, morphine, 1; poisoning, arsenic, 1; paraphimosis, 1; rheumatism, acute articular, 3; rheumatism, muscular, 1; stoppage, 3; syphilis, 2; sciatica, 1; tonsilitis, 1; typhoid, 1; urethral stricture, 2; varicose ulcers, 1.

Cases requiring surgical treatment, 36: Fracture of jaw, 1; fracture of arm, 1; fracture of both bones of leg, 2; fracture of toe, 1; fracture of elbow, 1; fracture of thigh, 1; fracture of ribs, 2; dislocated shoulder, 2; dislocated thumb, 1; sprained ankle, 1; incised wound of wrist, 1; incised wound of foot, 1; lacerated wound of wrist, 1; lacerated wounds of face, 7; lacerated wounds of scalp, 7; lacerated wound of nose, 1; lacerated wound of finger, 2; gunshot wound, 1; amputation of finger, 1; powder in face, 1.

Number of deaths, 17: Cerebral hemorrhage, 1; diphtheria,

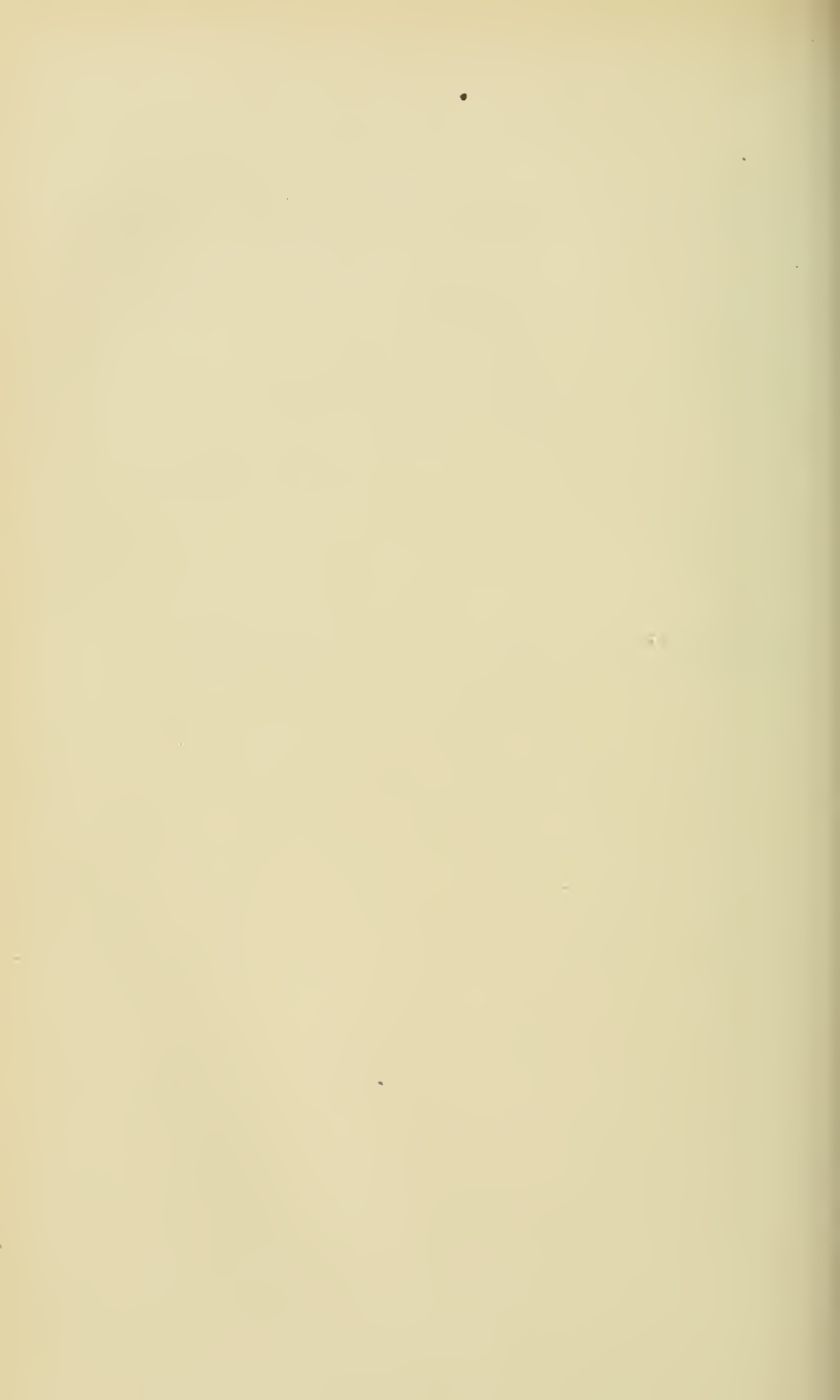
1 ; phthisis pulmonalis, 5 ; poisoning by arsenic, 1 ; bronchitis, acute, 1 ; broncho-pneumonia, 1 ; death by drowning, 2 ; marasmus, 1 ; found dead, 4, cause unknown, autopsy not thought necessary by city officials.

I would recommend that a stretcher be substituted for the basket now in use in the city ambulance, the basket not answering at all the object for which it is intended, being too large, unwieldy, and heavy to be carried up and down stairs ; in fact, when the ambulance is used, the basket has to be left on the street, and the patient, with much unnecessary suffering, brought down in some one's arms.

FREDERICK PERKINS, M. D.

City Physician.

REPORT OF THE MILK INSPECTOR.



REPORT OF MILK INSPECTOR.

To His Honor the Mayor and Board of Aldermen of the City of Manchester.

I herewith submit a report for the year ending January 31, 1895.

The method of obtaining samples of milk has been the same as that pursued during previous years, each sample being tested for the purpose of ascertaining its average quality, and in some cases being chemically tested for the purpose of discovering the presence of coloring matter, which would necessarily be added where milk had been "extended."

In testing for butter fat, in addition to the usual method heretofore used, the Babcock method was largely used where the samples appeared at all doubtful, and the instrument proved satisfactorily correct in all cases.

The supply was found to be short during most of the year, not owing to a larger consumption, but due largely to an extended drouth and the consequent drying up of the pasture feed, and to general "running out" of the land devoted to pasturage in the towns where the milk is raised for supplying the city. These pastures are generally the poorer part of the farming lands, and are often so rough and rocky that it is impossible to plow them and seed them down, and as they are nearly always overstocked with cattle, the feed is found to be insufficient even in years when no drouth exists, and nearly every farmer who keeps a herd of cows is obliged to feed from other sources each day, and each year the pasture lands seem poorer, and are fast becoming only

large yards where the cows can procure drinking water from the springs or brooks that are found in them, and places for exercise. If there was any way in which these old, worn-out pastures could be renovated, it would undoubtedly make a difference in the quality of milk during the summer months and would perceptibly increase the quantity. One great difficulty in trying to obtain a supply at such times from the milk cars which run through the city to Boston, Mass., is that at just those times there is always the same proportionate shortage in that city, and the milk cannot be sold at that time unless at an advanced price.

There has been a gradual decrease in the number of routes during the year, some of the smaller routes being bought and merged with the larger ones, as the drivers of the very small routes find it unprofitable at the present prices.

Very few complaints have been made by customers during the year, and these were promptly attended to and the cause at once remedied; and there was a general tendency among all milkmen to pay more attention to their supply from raisers, especially regarding quality.

No cases of tuberculosis were reported within the limits of the territory from which the city is supplied, but in towns farther away, and in that portion of the state of Massachusetts bordering upon New Hampshire, many cases were reported and much trouble was experienced on that account.

The number of licenses issued during the year has been 126, which amounted to \$63, and the tendency will be to reduce the number somewhat during the next few years, especially as regards routes.

The number of quarts of milk distributed daily by dealers during the year has averaged 20,115, and 3,785 quarts of skimmed milk, and the estimated number of cows to produce this quantity of milk is 3,352.

The state law regulating the sale of milk should be changed or amended, making it the same standard as that in the state of Massachusetts, and the penalties should be the same, for what is good law for those engaged in this traffic in the cities of that

state, or for the people who are consumers, is good law for the people of our state of New Hampshire.

No final decision having been rendered in the oleomargarine test case, which, as I am informed, has been carried to the United States Supreme Court, no change has been made in that traffic, and oleomargarine has been sold and will continue to be sold in our city, as has heretofore been done, pending the above decision.

Very respectfully,

H. F. W. LITTLE,

Milk Inspector.

REPORT
OF THE
BOARD OF POLICE COMMISSIONERS.

REPORT
OF THE
BOARD OF POLICE COMMISSIONERS.

To the Board of Mayor and Aldermen for the City of Manchester :

The report of the Board of Police Commissioners for Manchester for the quarter ending December 31, 1894, is hereby submitted. As the present board of mayor and aldermen has been elected since any report has been made, the commissioners have thought best to give in this report a general review of the year during which they have had charge of the police department.

As the term of office of the board did not commence until January 1, 1894, and the warrants of the entire police force expired on the 2d, a large amount of preliminary work was done before the commission was in existence. Application blanks were prepared and furnished to any person applying for a position upon the force ; more than one hundred applications were filed and on Monday, January 1, the board met and organized by choosing a clerk, and examined every applicant personally and by himself alone, in addition to the sworn statements contained in the applications. Thirty-eight appointments were made, twenty being from the old officers and eighteen, with one exception, being from inexperienced men. In selecting from the old officers fifty years was made the age limit, and thirty-five years the limit for new men. Before the issuing of the warrants to the

men appointed, on January 2, evidence was presented to the board of misstatements in the applications of two men and their appointments were at once revoked. One man appointed declined to accept and the three vacancies thus created were afterwards filled. Some changes have been made during the year; one officer has been dismissed and four have resigned, their resignations being handed to the board prior to investigations about to be entered upon. These vacancies have been filled and the force now consists of the chief of police, deputy chief, captain, sergeant, and thirty-four patrolmen; in addition, there are eighteen special officers, some of whom are occasionally employed during the absence or sickness of a regular officer, or when extra services are required, receiving pay only when on duty. In discipline the force has greatly improved and we believe that its efficiency is also greater than in the past, but in both respects a perfectly satisfactory standard has not been reached. The board will not rest satisfied until further improvement is shown. Complaints against officers have been filed by citizens in only three cases, all for violence in making arrests or after the arrest was made. In one case the officer was reprimanded, in one suspended for a short term, and in the other the charge was dismissed. The board has held thirty-two meetings during the year in addition to the several meetings required before January 1, 1894.

Great interest was manifested by the public in the beginning of the year to see how the commission would treat the liquor question. The subject was carefully considered and what has been done is in brief as follows:

On the first of January, 1894, there were in Manchester over three hundred and fifty places where intoxicating liquors were sold, in many of them at all hours of the day and night, and for seven days in the week. There was a regulation or understanding established by some former board of mayor and aldermen that all should close at 10 o'clock at night and should be closed on Sunday, but it was more honored in the breach than in the observance. We believe that for a long time no places have

been open after 10 o'clock or on Sunday for the sale of intoxicating liquors, with the exception of some so-called drugstores.

• No new places have been allowed to open, and of the three hundred and fifty places above mentioned one hundred and fifty-five have been closed and are out of the business. Every known dealer in intoxicating liquors has been before the court and paid a fine for violating the law. The number of arrests for drunkenness has slightly decreased and the police report the condition of the streets after 10 o'clock to be greatly improved as to quietness and good order. In 1893 the city received for fines and costs, \$6,883.06. In 1894 the amount was \$12,802.54. The pay-roll for 1893, for pay of officers, not including marshal and assistant marshal, was \$31,652.65; for 1894 it was \$29,413.72, more than \$2,200 less than the previous year.

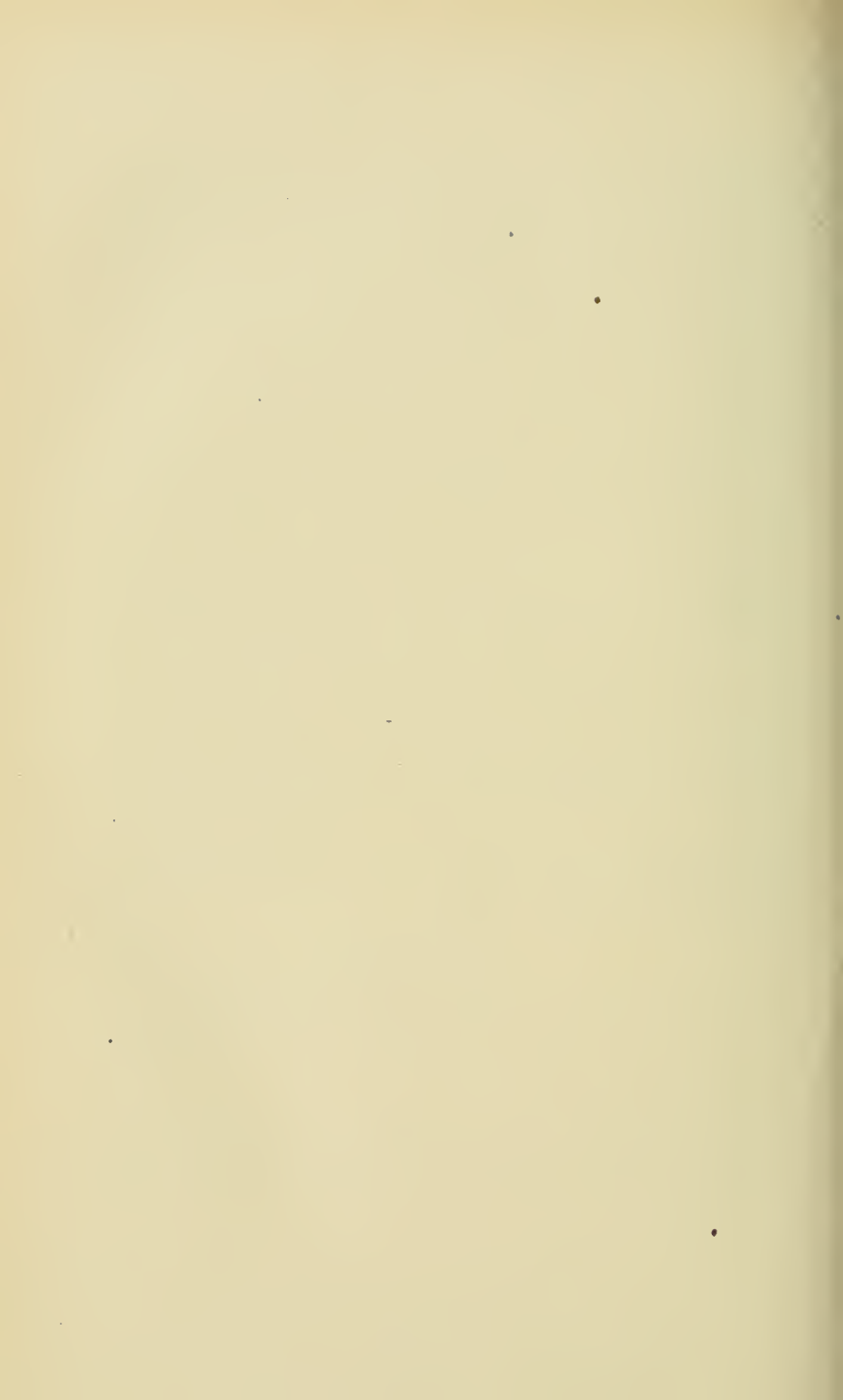
Many of the beats now covered by the officers are of great extent and far removed from the police station, the city having largely extended in three or four directions during the last few years. In the northeast, Derryfield park and vicinity require some attention, particularly in the summer; in the southeast, shoeshops and other industries have greatly increased the necessity for police protection; on the west side of the river, in the vicinity of the Rimmon shoeshop, and farther south, there is a demand for the services of an officer. These demands will undoubtedly require the appointment of two or three additional officers during the year. With so large a territory to cover, a signal system will soon be a necessity.

ISAAC L. HEATH,

N. S. CLARK,

FRANK P. CARPENTER,

Board of Police Commissioners.



REPORT
OF THE
BOARD OF HEALTH.

REPORT OF BOARD OF HEALTH.

To His Honor the Mayor :

The Board of Health submits the following report for the year 1894 :

Neil F. Starr, M. D. was reappointed to the board, and at its meeting in February was re-elected chairman. Mr. Joseph B. Sawyer was re-elected clerk, the personnel of the board remaining the same as during 1893.

EXPENDITURES.

Salaries	\$500.00
Labor	2,399.38
Street-car fares	70.65
Teams	67.35
Legal expenses	18.77
Postage and envelopes	65.05
Sundries	24.04
Stationery and printing	144.86
Disinfectants	2.23
Pest house, board, fuel, etc.	30.72
Advertising	41.53
Analysis of water	22.70
Furniture and tools	45.00
Railroad fares	3.40
Street department, cleaning cellars	33.25
	<hr/>
	\$3,468.93

The account should be credited with the \$33.25 which is charged as expended in cleaning cellars, as the amount was collected from the parties for whom the work was done, and was given to the street commission, and we have their receipt for the same.

INSPECTORS.

The same inspectors were retained as last season, with the addition of Richard J. Barry, who commenced his labors May 1. Their work is given in detail in their report and we believe they have been active and efficient in the discharge of their duties. The positions call for the exercise of considerable discretion and patience, and we are satisfied that they have got along with as little friction as could be expected considering the people and conditions with which they have to contend.

PRIVY VAULTS.

The fact that 663 water closets have replaced vaults in various parts of the city during the past year is conclusive evidence that the board has not changed its opinion as to the desirability of abolishing the privy vault. Work will continue on that line as fast as conditions and circumstances will permit. The excavator process of cleaning privy vaults has been continued during the year. We know it is far from being perfect, but we believe it to be the best in use, and as such will be used until something better is found, or until that happy time arrives when there will be no privy vault left to clean.

SEWERS.

The board has nothing new to add to what has been said in previous reports as to the sewers, or lack of them, which prevails in many of the newer parts of our city. We hope to see all streets provided as soon as possible. Until that time comes, sink-water nuisances will occur and be abated by this department with a great deal of regularity. The board has been in-

strumental during the past season in causing quite a number of people to enter sewers on streets in which sewers were already constructed.

DISPOSAL OF WASTES.

Very few complaints have come to this office during the past year as to the collection of the swill by the city farm teams, and no complaint at all as to the way it is disposed of at that institution. It is of little consequence how such matter is destroyed so long as its destruction is efficiently accomplished without making a nuisance or endangering the health of the public. The earth into which it is plowed at the city farm seems to be as effectual in rendering it harmless as cremation by a furnace, although of course it takes much longer to accomplish the same end. The disposal of the matter taken to the dumps is, however, a much more serious question just at present. Years of experience have demonstrated that it is impossible to collect the imperishable waste without getting more or less swill and other undesirable matter mixed with it, and with the best of care the city dumps are very near, if not quite, a nuisance at all times. We are pleased to note that the street and park commission is considering the necessity of some means of its disposal. Some progress has been made by this department towards a more careful handling of swill by private parties who collect it to feed to swine, and it is probable that such parties will, within a short time, have to be licensed by and do their work under regulations formulated by the board.

PLUMBING.

The plumbing regulations have been in force since May 1. Their framing and adoption by the board took much time. While they were being considered the board met a delegation or committee from the journeymen plumbers and the master plumbers in a body. At each of these meetings the regulations were considered one by one, and thoroughly discussed. The science of sanitary plumbing is comparatively new, but there

are old principles of ventilation and traps which time and experience have proved to be correct. The board endeavored to embrace in its rules only such things as seemed absolutely necessary, and rejected much that was brought to its notice with an idea of "making a dollar for somebody." Any suggestion which was necessary for the safety of the public was adopted. With these ideas in view a set of regulations was produced which was published by, and met the approval of, some of the best sanitary papers in the country. They have worked to the satisfaction of all parties concerned who care to be honest and workmanlike in their dealings. Circumstances and conditions, unforeseen when the rules were adopted, have arisen and it will be necessary to make some slight changes, but we believe the city is to be congratulated on having so plain, business-like, and safe a set of regulations. Their need has been amply proved since their adoption. At least fifty per cent of the lines of main pipe have shown leaks when submitted to the water test, and the plumbers have been obliged to make the joints tight in the presence of the inspector. If work which was put together with the understanding it must stand test fails to do so, what can be expected of that which has been thrown together with a knowledge that it never would be tested? There is no doubt that much of the work done before the plumbing regulations were adopted is faulty in the extreme. Men may be honest but careless. Some are dishonest as well as careless, and when either of these conditions occur, or when cheapness has been the only end sought by the landlord, the result must be deplorable to the tenant or occupant of a building so plumbed. Some old blocks have been examined by this board and measures taken towards the improvement of the plumbing. We are in hopes in time to remedy the careless or criminal work which was put in before the rules were adopted. The board would advise that in all buildings being erected, whether on sewered streets or not, provisions be made for the plumbing which must in time be put in, as it is much cheaper and better to have such arrangements made when the house is erected, and often prevents much costly tearing out and rebuilding.

WATER SUPPLY.

The shore of Lake Massabesic was watched by an inspector during the summer and early fall. That such a measure is a wise one the inspector's report amply shows. The amount of matter removed from the lake and its shores was not probably enough to so pollute the water as to cause sickness, but it is certainly a source of satisfaction to most of us to know that the water is being kept clean as well as free from actual disease germs. The board caused a sample of water to be taken from the fountain near the railroad, on Canal street, and sent to a chemist for analysis. The statement was as follows :

SANITARY ANALYSIS OF WATER.—SAMPLE NO. 2.

To the Board of Health, Manchester, N. H. :

Odorless.

Color, yellowish.

Evaporation, some foamy.

Residue, yellowish and some circles.

Ignition of residue, it blackens.

Solids, grains per gallon, 2.4.

Loss, grains per gallon, 1.

Hardness, degree, 1.

Alkalinity, degree, 0.5.

Chlorine, grains per gallon, 0.1.

Free ammonia, parts per million, trace.

Albuminoid ammonia, parts per million, 0.095.

Nitric acid, none.

Nitrous acid, none.

Poisonous metals, none.

Iron, trace.

Sediment, little.

Microscopic examination shows a few infusoria.

Oxygen for oxidation, grains per gallon, 0.3.

This is good water.

EDMUND R. ANGELL.

DERRY, N. H., August 9, 1894.

March 21, 1888, the Board of Health then in office caused a sample of water to be taken from the fountain situated at the corner of Elm and Myrtle streets and sent to the same chemist. The statement he then made follows :

Odor, slight.

Color, marked yellowish brown.

Evaporation, somewhat foamy.

Residue, in circles and patches brownish.

Total solids, grains per gallon, 2.8.

Residue darkens decidedly on ignition.

Volatile and combustible matter, .5.

Hardness, equivalent to grains of CaCO_3 , 2.

Alkalinity, equivalent to grains of CaCO_3 , 1.

Chlorine, grains per gallon, 1.

Free ammonia, parts per million, .025.

Albuminoid ammonia, parts per million, .13.

Nitric acid, slight trace.

Nitrous acid, none.

Lead, none.

Iron, grains per gallon, about .01.

Sediment, none.

Microscopic examination shows nothing significant.

The first portion of condensed steam from this water has a slight odor, which reminds one of decayed wood. The color appears to be due to dissolved organic matter, because the residue becomes colorless on ignition, but it would remain brown if the color was owing to iron. The total solids are very small in amount and the hardness shows that the larger part of them consists of earthy salts.

The amount of albuminoid ammonia shows that the quantity of dissolved organic matter is rather more than desirable though it is low for river or pond water.

EDMUND R. ANGELL.

DERRY, N. H., March 23, 1888.

By a comparison of these two statements it will be seen that the sample taken last year is a trifle better than the sample taken

in 1888. This may be due to the fact that the sample of that year was taken in the spring when the water was liable to be high from the rains and melted snow of the preceding winter. It is safe to say, however, that the water has not deteriorated, and the citizens can be assured that the source of our water supply still remains one of the best in the world.

The movement of the water commissioners to take the land a reasonable distance from the shores of the lake should be commended by every good citizen. Money used to protect and keep pure our water supply must be a profitable investment.

At the same time the sample of Massabesic water was sent, a sample of the water which comes from the spring in Hanover square and supplies so many of the drinking fountains in our streets, was also sent. The statement is given below :

SANITARY ANALYSIS OF WATER.—SAMPLE NO. I.

Board of Health, Manchester, N. H.:

Odorless.

Colorless.

Evaporation, quiet.

Residue, uniform and white.

Ignition of residue, it does not darken.

Solids, grains per gallon, 17.8.

Loss on ignition, grains per gallon, 3.6.

Hardness, degrees, 4.5.

Alkalinity, degrees, .5.

Chlorine, grains per gallon, 2.6.

Free ammonia, part per million, .01.

Albuminoid ammonia, part per million, .02.

Nitric acid, considerable.

Nitrous acid, none.

Lead, none.

Iron, trace.

Sediment, scarcely any.

Microscopic examination shows a few mineral particles.

Oxygen for oxidation, grains per gallon, .029.

The unfavorable features of this water are excess of chlorine and excess of nitric acid. The water contains filtered sewage. Although it is very free from organic matter, the surroundings are somewhat unfavorable and the water is not above suspicion.

EDMUND R. ANGELL.

DERRY, August 9, 1894.

This water was also analyzed in 1888. At that time the total solids, grains per gallon, was given as 12.2 ; chlorine, grains per gallon, 1.7 ; free ammonia, parts per million, none ; albuminoid ammonia, parts per million, .03 ; nitric acid, some ; nitrous acid, none.

The professor also said :

Chlorine and nitric acid are in excess. They have filtered through the soil, while the organic matter with which they are associated was retained. There is an unusually small amount of ammonia. This fact in connection with the slight darkening of the residue during ignition shows that there is no appreciable amount of organic matter in the water at present. How long it may remain so can best be estimated by examination of the surroundings, but the fact that so much chlorine is present shows some unfavorable connection with the water, and if organic matter itself, in dangerous amount, is not brought into it there would, nevertheless, be liability of disease germs entering should they be present in sources of pollution about the premises. Although the present condition of the water does not appear to be prejudicial to health, for reasons given above it must be denominated suspicious water, unless the excess of chlorine and nitric acid can be satisfactorily accounted for in a way other than to attribute them to some sources of filth. The earthy salts are sulphates mostly.

EDMUND R. ANGELL.

DERRY, N. H., March 19, 1888.

By a comparison of the two statements it will be seen that the chlorine has increased over fifty per cent, and the nitric acid has also increased. This is in line with the professor's prediction.

While he does not actually say the water is bad, he does give the idea that it is very near being dangerous. The board proposes to have tests made often hereafter, and if at any time the analysis shows the water to be unfit for domestic purposes, measures will be at once taken to have the supply cut off.

CONTAGIOUS DISEASES.

The following table shows the number of contagious diseases reported during each month of the year and the deaths resulting therefrom :

	Membranous croup.		Diphtheria.		Typhoid fever.		Measles.		Scarlet fever.		Total.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
January	1	1	1	.....	2	3	55	3	4	.....	63	7
February	1	.....	2	.....	2	.....	65	3	21	2	91	5
March.....	.....	.....	2	1	11	.....	65	1	17	1	95	3
April.....	.....	.....	.....	.....	1	.....	26	.....	4	.....	31	.....
May .....	.....	.....	1	.....	3	2	9	1	7	....	20	3
June.....	1	1	.....	.....	6	1	.....	..	2	.....	9	2
July .....	.....	.....	.....	.....	4	2	.....	.....	2	.....	6	2
August.....	.....	.....	1	.....	8	1	.....	.....	2	....	11	1
September.....	.....	.....	6	2	14	6	.....	.....	.....	.....	20	8
October.....	2	2	12	5	13	2	.....	.....	1	.....	28	9
November	3	3	12	2	6	1	2	.....	5	.....	28	6
December	4	5	6	1	3	3	1	.....	2	.....	16	9
Total	12	12	43	11	73	21	223	8	67	3	418	55

The table following, which contains the number of cases of contagious diseases and the deaths resulting therefrom during the past ten years, is put in for the purpose of comparison.

YEARS.	Mem-branous croup.		Diphthe-ria.		Typhoid fever.		Scarlet fever.		Measles.		Totals.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
1885.....	*	*	*	18	*	20	*	5	*	36	*	79
1886.....	*	*	*	9	*	12	*	.....	*	5	*	26
1887.....	*	*	73	17	28	18	94	4	*	9	*	48
1888.....	*	*	126	30	35	12	44	1	187	9	392	52
1889.....	*	*	79	23	36	16	259	5	54	4	428	48
1890.....	*	*	41	9	36	17	63	3	298	6	438	35
1891.....	*	*	21	2	76	18	25	.....	89	2	211	22
1892.....	*	*	26	5	33	11	44	2	451	11	554	29
1893.....	*	*	7	1	79	15	110	5	212	2	408	23
1894.....	12	12	42	11	74	21	67	3	223	8	418	55

* No returns made during this year.

TABLE.—*Continued.*

CAUSES OF DEATH.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Bronchitis and grip.....						1							1
Calculus, biliary.....										1			1
“ hemorrhage.....											1		1
Cancer.....					2		1			1	1		5
“ and grip.....			1										1
“ of breast.....	1												1
“ of intestines.....	1										1		1
“ of jaw.....												1	1
“ of liver.....				1						2			3
“ of rectum.....						1							1
“ of stomach.....					1								1
“ of uterus.....										1			1
Carbuncle.....							1						1
Cardiac asthma.....								1					1
Catarrh, intestinal.....						1			1				2
Childbirth.....			1	1									2
Cholera infantum.....			1		1	6	58	43	21	10			140
“ “ and anæmia.....									1				1
“ “ and meningitis.....								1					1
Climacteric.....								1					1
Colic.....								1			1		1
Complication of diseases.....					1		1		1				3
Contusion.....								1					1
Convulsions.....	2	3	1	2		2	2		1	1	2		16
Croup.....		2	1					1		4	1		10
“ membranous.....	1					1				2	3	5	12
“ spasmodic.....										1			1
Cough, whooping.....					1		2					1	4
“ “ and meningitis.....						2				1			3
Debility.....	3	1	6		1	2	3		2	6	4	3	31
“ old age, and bronchitis.....	1												1
“ and scrofula.....					1								1
Dentition.....	2						8	2		1			13
Diabetes.....		2		2			1			1			6
Diarrhea.....						1							1
“ dyspeptic.....				1									1
Diphtheria.....			1						2	5	2	1	11
Dropsy.....								1		1			2
Drowned.....						1							1
Dysentery.....			1	1					2	1			5
Endocarditis.....		1				1							2
“ chronic.....					1								1
“ & rheumat'm.....								1					1
Enteritis.....				1				2		1			4
“ gastro.....								1		1			2
“ and pneumonia.....										1			1
Epithelioma.....						1							1
Epilepsy.....						2	1						3
“ scald.....					1								1
Erysipelas.....	1				1								2
“ grip, & old age.....					1								1
Exhaustion.....	1												1
“ from cerebral tumor.....						1							1

TABLE.—*Continued.*

CAUSES OF DEATH.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Exhaustion following cerebral neurasthenia.....			1										1
Feyer, continued.								1					1
“ puerperal.....	1												1
“ scarlet.....		2	1										3
“ typhoid.....	3				2	1	2	1	6	2	1	3	21
Gangrene, senile.....				1					1				1
Gastritis.....	1	1					3		2				8
“ chronic.....	1												1
“ ulceration.....											1		1
Gastro-enteritis.....	1					1							2
Grip.....		3											3
“ and convulsions.....	1												1
“ & disease of stomach.....									1				1
“ and pneumonia.....	1												1
“ and old age.....		1											1
Hæmoptysis.....				1									1
Heart, disease of.....	1	1	2	5	5	3	2	1	1	3	1	4	29
“ “ and bronchitis.....												1	1
“ “ chronic.....										1			1
“ “ and dropsy.....											1		1
“ “ and disease of stomach.....									1				1
“ “ and old age.....									1				1
“ “ and pneumonia.....										1			1
“ aortic regurgitation.....										1			1
“ fatty degeneration.....			1										1
“ malformation of.....	1												1
“ mitral insufficiency, congenital.....										1			1
“ mitral regurgitation.....								1					1
“ neuralgia and paralysis of.....									1				1
“ organic disease of.....									1				1
“ palsy of.....									1				1
“ valvular disease of.....				2	2				1	1	2		8
“ valvular disease of, and exhaustion.....												1	1
Hæmorrhage.....										1	1		2
“ cerebral.....		1	1						1				3
“ uterine.....			1										1
Hepatitis.....					1						1		2
Hydrocephalus.....		1		1									2
“ acute.....				1				1	1				3
Hyperæmia, passive cerebral, and exhaustion.....			1										1
Inanition.....		1						5	2		1		9
Influenza and pneumonia.....	1												1
Influenza and passive congestion of liver, and hypostatic pneumonia.....	1												1
Jaundice.....		1											1
Laryngitis.....					1								1
“ tubercular.....											1		1
Laryngismus stridulus.....									1				1

TABLE.—Continued.

[illegible]

TABLE.— *Continued,*

CAUSES OF DEATH.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Pneumonia and injury to spine and side					1								1
“ broncho. and asthma...					1								1
“ and heart disease.....									1				1
Premature birth.....		3	1		2	2		1	1	1		1	12
Pyæmia.....				1		1	1						1
Rheumatism.....						1							2
Rheumatism and pericarditis.....					1								1
“ & heart disease								1					1
Septicæmia, puerperal...												1	1
Serofula and exhaustion...	1												1
Spine disease and debility	1												1
“ Potts's disease of		1	1										2
“ sarcoma of.....													1
Still-born.....	3	3	5	9	6	4	7	6	3	7	7	9	65
Stomach, disease of.....								1					1
“ inflammation of.			1										1
Strangulation.....					1								1
Strangulated hernia.....												1	1
Suicide.....												1	1
“ poison.....							1			1			2
“ shooting.....			1			1							2
“ throat cut.....			1										1
Syphilis.....												1	1
“ hereditary.....							1						1
Tuberculosis.....		1					2	2		1	1	1	8
“ acnte.....						1				1			2
“ of bowels.....												1	1
“ intestinal.....						1							1
“ of lungs and brain.....				1									1
“ mesenteric.....					1								1
“ pulmonary & renal.....										1			1
Tumor of stomach.....										1			1
Unknown.....	3				2		1	3				4	13
Uræmia.....									1		1		2
	99	76	83	70	86	67	137	112	90	98	58	70	1046

SOME COMPARISONS OF VITAL STATISTICS FOR THE LAST TEN YEARS.

	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.
Population, estimated	37,884	39,082	40,215	41,433	42,689	44,126	45,500	48,000	50,000	55,000
No. deaths, exclusive of still-births.....	733	725	798	833	764	901	880	963	971	977
Deaths, per thousand of population.....	19.35	18.57	19.84	20.39	17.90	20.40	19.34	20.06	19.42	17.76
Deaths of children under five years.....	312	313	356	397	353	434	393	500	527	546
Ratio, deaths of children to total deaths, per cent.....	42.56	43.17	44.61	46.54	46.20	48.17	44.66	51.42	50.62	55.89
Deaths of children per thousand of population	8.24	8.02	8.85	9.58	8.27	9.87	8.64	10.42	10.54	9.91
Deaths from zymotic diseases.....	231	205	256	227	199	252	181	153	137	209
Deaths from zymotic diseases, per thousand of population.....	6.10	5.25	6.37	5.48	4.66	5.72	3.98	3.18	2.74	3.80
Cholera infantum.....	89	115	148	115	86	141	122	103	89	140
Consumption	93	109	93	109	79	94	84	89	79	74
Croup.....	12	21	25	24	25	15	7	3	4	24
Diphtheria	18	9	17	30	23	9	2	5	1	11
Bronchitis, all forms.....	29	11	29	37	35	38	38	39	44	56
Pneumonia, all forms.....	42	26	39	45	38	58	72	39	53	81
Heart disease, all forms.....	40	37	45	23	47	43	38	48	46	52
Scarlet fever.....	5	.....	4	1	5	3	.....	2	5	3
Typhoid fever.....	20	12	17	12	16	17	18	11	15	8
Measles.....	35	5	8	9	4	6	2	11	2	4
Whooping cough.....	11	3	1	5	6	4	5	.....	2	.....
Small-pox	3	.....	.....	.....	.....	.....	.....	.....	.....	.....
Births reported.....	1,106	1,207	1,391	*830	*572	*965	*985	1,178	1,491	1,247
Births per thousand of population.....	29.19	30.92	34.59	.....	.....	.....	.....	.....	.....	.....
Marriages reported.....	404	451	473	439	506	463	549	637	650	616

*The returns are manifestly incomplete.

Our city has again been fortunate in the matter of contagious diseases. In many of our sister cities it has been necessary to close public and private schools, and prevent any public gathering of children. No such comprehensive measures have been necessary to prevent the spread of disease in our city. We believe that this is due, in part at least, to the prompt and effective measures that have been taken to isolate every case as soon as it was reported to this office. It has been necessary twice during the year to move people to the city hospital for contagious diseases. An attempt was made by the board during the past year to secure money enough to erect a suitable hospital in place of the pest house. It was not successful. We are hopeful that in time a community which is liberal enough to spend nearly \$100,000 per year to save property and human life from fire, will be led to see the necessity that exists for some proper hospital, which we believe would save many more lives, and as much in the value of time lost to those who are sick, as any fire department in the world.

The cause of a disease is one of the things which the inspectors endeavor to discover, but which, owing to various reasons, they are not always able to trace. It was noticed once this year that several cases of typhoid fever occurred among the customers of a certain milkman. An examination of the premises of the man and the people who sold him milk, showed a well dangerously near a sink pipe, and an analysis of the water showed pollution. The well was cleaned, and during the process it was said the stones in the well showed discoloration from the sink water. The board would not say that the milk was watered, but in some way, perhaps from the washing of cans, it seems reasonable to suppose the milk became contaminated. As the germs will multiply at an almost incredible rate in milk, it seems also reasonable to suppose that the cause of several cases of typhoid fever was that polluted well situated in another town.

A case of membranous croup was reported. The inspector could not in any way by questions to the members of the family find any connection with any previous case. He finally noticed

that the paper on the wall of one of the rooms looked new, and on inquiry found that the old paper had been removed and new paper put on two days before the sick child began to show symptoms of the disease. He also found there had been a case of malignant diphtheria in the tenement five years before, and that the place had not been fumigated after the death of the patient sick at that time. The walls had been repapered some time after this first case occurred, but when it was done the old paper had not all been removed. It seems probable that when the paper was taken off the last time preparatory to repapering, that some of the germs of the first case of diphtheria that had been confined on the walls were released, and the little one being already sick with tonsilitis, was in such a condition physically that some of the germs propagated the disease in her system. It is needless to state that after the termination of the last sickness the place was thoroughly fumigated. By these two cases it will be readily seen that the cause is sometimes so far removed from the time or place of the sickness itself, that it is small wonder it is not discovered.

There are some physicians who have considered that the board has gone too far in its attempts to isolate cases of contagious diseases, and have seemed to take offense at the measures adopted. The board does not intend to interfere in the conduct of any case which it becomes its duty to isolate. It prefers to work in harmony with the physicians. It must, however, do its duty, and when some inconvenience is caused to the individual it is done only that the great public as a whole may be protected.

DEATH RETURNS.

In the table included in this report the total number of deaths and their causes are given. It will be seen that it is an improvement on those issued in former years, from the fact that the number that died without the cause being given has been very much reduced. During the latter part of the year no such returns were rendered. This is due to an ordinance passed by the city government, and for which this board tenders its thanks. There are

still many imperfections due to the carelessness of physicians. If each one who reports a death would only use a little care this table might be of much use instead of being, as it sometimes is, an object of ridicule to the very men who have by their carelessness or willfulness made it what it is.

It will be seen that in the table of comparisons the population is fixed at 55,000. The board arrives at this conclusion in the following manner: The total number of taxable polls returned by the assessors for the year 1894 was 12,103. It is a good rule of statistics that the ratio of the taxable polls is to the population as 1 is to 4.54. Allowing that to be true, we have in this city a population of 54,949, or near enough to call it 55,000 for all practical purposes.

The board thanks Your Honor and all officials and citizens who have aided it in the work it is trying to do.

CORNELIUS F. STARR, M. D.,
JOSEPH B. SAWYER,
C. W. DOWNING, M. D.,

Board of Health of Manchester.

INSPECTORS' REPORT.

Gentlemen of the Board of Health :

We beg leave to submit the following as the report of the inspectors for the year 1893 :

Vaults and privies inspected	3,988
Vaults inspected after cleaning	1,029
Water-closets inspected	1,255
Yards and alleys inspected	2,421
Cellars inspected	1,677
Barns and outbuildings inspected	909
Tenements inspected	861
Barn cellars inspected	1,535
Latrines inspected	30
Teams and riggings of excavators inspected	41
Soaperies, slaughter-houses, etc., inspected	22

Cleaning or repairs were ordered as follows :

Vaults cleaned	389
Yards and alleys cleaned	170
Cellars cleaned	359
Barn cellars cleaned	83
Barns, etc., cleaned	6
Tenements cleaned	44
Privies cleaned	42
Latrines cleaned	8
Water-closets cleaned or repaired	205
Vault covers repaired	76
Leaky drainpipes repaired	59

Three hundred and sixty-four complaints have been investigated and in 254 cases a remedy was provided. In 110 cases there was no cause or the cause was of such a nature as to be beyond our control.

Openings other than leaks in the drainage system were found at 95 places, and three openings were ordered closed. Seventy-seven sinks were provided with traps.

Sewage was found running on the surface of the ground in 58 places. The owners of the premises were made to care for the same either by entering the sewer or providing proper cesspools.

It has been necessary to write 825 letters and make 2,894 calls in doing the work of the department.

Twenty-four dead animals were buried or otherwise disposed of.

One hundred and eight hens and small animals that were being kept in the cellars of dwellings were ordered removed.

The people living in 61 tenement blocks were warned to stop throwing swill and slops into the yard or street.

Three cases of overcrowding were discovered and the people were made to live in a more sanitary manner.

The city dumps were inspected twenty times, and once the street department was asked to discontinue using one place on account of sickness near by. This request was immediately complied with.

An attempt was made to make the people who collect swill be neater and more careful in their work, and twenty notices and several warnings were given them.

Thirty-three permits were granted to householders for the cleaning of their own privy vaults.

By direction of the board samples of water from seven suspected wells were sent away for analysis. In four cases the water was pronounced bad and other water was provided.

One hundred and fifty-nine legal notices were served and the proper returns made. By order of the board two cases were prosecuted in the police court.

Ten complaints against the scavenger service have been re-

ceived. In each case the proper parties were notified and relief was given.

Twenty catch-basins were complained of and were repaired or flushed by the street department at the request of the inspectors.

Nuisances to the number of seventy-one, not classified in the above, have been abated.

One hundred and forty-four swine and eight cows were discovered being kept within the sanitary limits and were ordered removed.

A statement of mortality was compiled each month and sent to 215 different boards of health, physicians, etc.

Weekly reports of contagious and infectious diseases have been sent to the State Board of Health at Concord and to the Marine Hospital Service at Washington, D. C.

Contagious or infectious diseases have been reported as follows : Measles, 223 ; scarlet fever, 67 ; typhoid fever, 73 ; diphtheria, 43 ; membranous croup, 12 ; total, 418. Of these cases 363 were reported by physicians, 22 by householders, and 33 were discovered by the inspectors.

The inspectors were unable to find the cause of the disease in 247 cases. In 155 cases the connection with some previous case was clearly traceable. Ten people contracted the disease outside the city limits, and bad drainage was the probable cause in six cases.

At 86 dwellings it was necessary to order isolation and disinfection, and in nearly all these cases the inspectors were obliged to give instructions as to the steps to be taken.

Sixty children who were attending school and 56 people who were working and resided in houses where contagious diseases existed were restrained from further attendance at school or employment until all danger from contagion had passed.

Twenty-four rooms or tenements were fumigated, and ten funerals were attended to see that the remains were not exposed.

Two people sick with scarlet fever were removed to the city hospital for contagious diseases.

Two hundred and forty-five houses have been placarded, and the placards removed at the termination of the sickness.

About 1,300 pamphlets issued by the State Board of Health have been distributed in localities where contagious diseases existed.

Water-closets have been substituted for vaults, or barn cellars, used as vaults, on the following streets :

A	1
Alfred	3
Amherst	16
Amory	3
Appleton	2
Ash	6
Ashland	3
Auburn	12
Beauport	4
Beech	3
Belmont	4
Blaine	2
Blodget	1
Bowman	4
Bridge	9
Brook	4
Brown avenue	3
Cartier	5
Cedar	19
Central	44
Chestnut	13
Concord	3
Douglas	2
Dubuque	5
Dutton	2
Elm	7
Elm avenue	1
Frederick	2
Granite	1
Hanover	9
Hancock	2

Howard	6
Harrison	5
Hayward	4
High	4
Lake avenue	III
Laurel	10
Lowell	9
Main	30
Manchester	41
Market	2
Mast	1
Merrimack	46
Milford	3
Morrison	2
Munroe	1
Myrtle	6
Nashua	2
Orange	19
Parker	2
Pearl	22
Pennacook	5
Pine	20
Prospect	9
Riddle	2
Rimmon	7
Second	3
Spruce	58
Third	2
Turner	3
Union	6
Valley	1
Walker	2
Walnut	2
Webster	2
West	1

Willow	8
Winter	1
	<hr/>
	663

Charles Langmaid was employed 101 days as sanitary patrolman at Lake Massabesic. On Sundays and such days as large crowds were expected he was aided by the sanitary inspectors, they serving sixteen days in all.

The work done was as follows:

Houses, buildings, and surroundings inspected . . .	159
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They were distant from the lake as follows:

Touching water or shore at high-water mark . . .	57
Ten feet or less back	46
Between 10 and 20 feet back	32
“ 20 “ 50 “	15
“ 50 “ 100 “	7
Over 100 feet back	2

Privies connected with them were located as follows:

Touching the water	1
18 feet from shore	2
25 “ “	3
50 “ “	6
Between 50 and 100 feet	6
100 feet from shore	29
Over 100 feet from shore	92
No privy	20

The sink water was cared for as follows:

10 feet or less back	2
Between 10 and 25 feet back	6
“ 25 “ 50 “	68
“ 50 “ 100 “	16
Over 100 feet back	29
No sink or dry sink	38

In cases where there is no sink the people said they threw the slops more than 100 feet from the water.

Well water was used at 37 cottages. Lake water was used by the others.

The yards at ten places were found to contain some rubbish and dirt, and in a few places the swill was thrown from the windows or doors.

Forty-four stables were found situated as follows.

3 feet from the water	.	.	.	.	.	.	.	.	1
75 " " "	.	.	.	.	.	.	.	.	5
100 " " "	.	.	.	.	.	.	.	.	17
150 " " "	.	.	.	.	.	.	.	.	12
200 " " "	.	.	.	.	.	.	.	.	9

Eight boat-houses are standing over or in the water. A brook emptying into the lake runs under two houses.

Sink water was found on the surface of the ground in four places, and the nuisance abated.

Three hundred and fourteen dead fish were removed from the lake or shore.

A dead bird and one dead snake were cared for.

Swill and garbage, including old clothes, etc., were removed at 191 places.

Thirty-one picnics were attended.

A privy was ordered cleaned.

Twenty-six persons who were bathing were driven out and several were stopped before entering the water.

People were warned not to pollute the water of the lake seventy-five times.

The privy spoken of as touching the water is provided with a water-tight vault. It is not used, being owned by the water-works department.

Mr. Richard J. Barry has been employed since May 1 and has been specially detailed to attend to the enforcement of the plumbing rules. The work done in that direction is as follows:

Number of jobs reported 511

Number of water tests made	375
smoke tests made	13
inspections	1,315
old blocks inspected	20

Work was found defective at sixty-one places. In all such cases the defective work was removed and proper work substituted therefor.

The fixtures put in since May 1 are as follows:

Water-closets with tanks	735
Water-closets, pressure direct	230
Sinks	557
Bath-tubs	240
Wash-bowls	192
Wash-trays	34
Urinals	22
Slop hoppers	7
Shower baths	4

2,021

Four hundred and fifty-one stacks were tested.

There were twenty-seven rain-water leaders put in and ten fresh-air inlets.

There are twenty-three firms doing business as plumbers in this city at the present time.

The inspectors thank the board and each and every one to whom it is indebted for many favors granted during the year.

HERBERT S. CLOUGH.

JOHN F. LOONEY.

R. J. BARRY.

REPORT
OF THE
CITY ENGINEER.

CITY ENGINEER'S DEPARTMENT.
1894.

CITY ENGINEER.

WINFRED H. BENNETT.

FIRST ASSISTANT ENGINEER, FIELD AND OFFICE.

HARRIE M. YOUNG.

SECOND ASSISTANT ENGINEER, DRAUGHTING.

GEORGE W. WALES.

THIRD ASSISTANT ENGINEER, FIELD AND OFFICE.

HARRY J. BRIGGS.

ASSISTANT DRAUGHTSMAN.

A. H. SANBORN, Jan. 29 to Mar. 14.

ASSISTANTS.

GEORGE M. CURRIER, To Aug. 4.

HERBERT L. WATSON, Mar. 16 to Apr. 7, July 5 to Aug. 4.

J. EDWARD BAKER, Apr. 6 to Aug. 4.

TYPEWRITER AND CLERK.

ANNA GERTRUDE BENNETT.

REPORT OF THE CITY ENGINEER.

To His Honor the Mayor and Gentlemen of the City Councils :

SIRS,— I have the honor of presenting my ninth annual report, being the sixteenth annual report of the work in the city engineer's department, for the year ending December 31, 1894.

Expenses of the department for the year 1894, per monthly draft :

January	\$414.34
February	361.48
March	747.91
April	397.22
May	512.69
June	692.48
July	329.55
August	322.75
September	507.48
October	293.88
November	239.75
December	553.44
Total	<u>\$5,372.97</u>
Appropriation	<u>4,300.00</u>
Amount overdrawn	\$1,072.97
Average monthly draft	\$447.75

Itemized account of expenses for the year :

For salary of city engineer	\$1,200.00
salary of assistants	3,035.25
supplies for office	276.32
additions to office furniture	25.81
stakes and lumber	75.11
horse shoeing and repairs of wagon and harness .	79.75
street-car fares	20.00
express and postage	6.45
repairing	24.57
books and folios	63.60
printing	2.75
telephone	36.20
horse hire	42.25
new instruments	70.81
typewriter supplies	2.00
typewriter clerk	355.50
street numbers	45.00
photographs . . . . .	.50
painting rods, signs, etc.	11.00
	<hr/>
	\$5,372.97

The items for salaries may be divided as follows :

For giving lines and grades for the extension and construction of streets and sidewalks . . .	\$543.89
plans and profiles relating to the construction of streets and sidewalks	180.56
surveys and levels for the construction of streets and sewers	331.38
giving lines and grades for, and superintending the construction of, sewers	258.05
plans and profiles relating to the construction of sewers	192.69

For surveys, measurements, and plans for the assignment of street numbers	\$231.22
making plans for improvements other than those mentioned in this account	210.98
surveys, levels, and plans, also lines and grades given for improvements in Pine Grove cemetery	135.32
surveys, levels, and plans, also lines and grades given for improvements in Valley cemetery	15.00
making plans and new maps of Pine Grove cemetery	115.53
making map of Pine Grove cemetery for city treasurer	184.55
making map for superintendent of cemetery	82.67
surveys, levels, and plans, also lines and grades given for repairing and extending the street railway	16.39
collecting data, classifying accounts, and other work in relation to office report	131.92
lines, grades, and superintendence given for the construction of avenues in Stark park	29.83
lines, grades, and superintendence given for the construction of avenues in Derryfield park	87.36
Excelsior hook-and-ladder house, plans, specifications, and measurements	16.50
Fire King engine house, change in storehouses, plan and specifications	18.50
indexing plans and notes	38.15
checking notes, figures, etc.	24.03
surveys, levels, etc., at Main-street bridge	66.66
map of city	29.75
new sewer map of city, and sewer book	58.85
measuring and figuring concrete laid for the city attendance upon meetings of the street and park commission, and data furnished them	31.63
	155.23

For locating and putting up street signs and guide boards	\$23.63
locating and setting stone bounds	63.65
office work, preparing notes, data, records, etc.	190.13
Pine Grove cemetery book, list of owners	10.25
new sewer license book	56.00
procuring abutters' names	42.13
lettering and finishing plans	47.25
information given engineers and others regarding lines, grades, sewers, etc.	221.13
computing areas of land taken for new streets	2.33
researches of deeds for property lines and ownership	69.18
plans for and attendance upon board of aldermen at street hearings	36.00
attendance upon meetings of the committee on streets, and plans pertaining thereto	28.00
attendance upon meetings of the committee on sewers and drains, clerical work, including orders written	30.00
inventory of office	19.25
list of streets laid out, for tables	36.08
list of sewers, for tables	6.57
street petitions	23.50
sewer petitions	15.56
additions to contour maps	7.50
new sewer book	11.00
tracing of sewer maps for street commissioners	46.50
sewer sheet tables	8.35
sewer licenses and permits	54.62
Total	<hr/> \$4,235.25

The following bills, charged to other appropriations, have been certified to by this department :

LAND DAMAGES.

A. S. Lamb, Hayward, 30,132 square feet, at 4 cts.	\$1,205.28
Susan Prescott, Cass, 141.37 square feet, at 7 cts. .	9.89
Emma F. Brown, Cass, 1,478.52 square feet, at 7 cts.	103.49
John Mulligan, Cass, 1,298.5 square feet, at 7 cts. .	90.89
Sydney A. Blood, Dearborn, award by board of aldermen	20.00
Sydney A. Blood, Dearborn, additional award .	80.00
M. Prout, Hayward, 23,732.54 square feet, at 4 cts.	949.30

STREET SIGNS AND GUIDE BOARDS.

W. B. Abbott (heirs of), to painting and lettering 635 street signs, at 16 cts.	\$101.60
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STONEMWORK.

F. S. Bodwell, to 81 stone bounds for new streets, at \$1.25	\$101.25
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PRINTING.

W. E. Moore, to printing copies of chapter 18, City Ordinances	\$5.75
F. H. Challis, to printing 1,000 blank sewer permits	6.85
“ “ to printing 400 card records . . .	4.25

STREET NUMBERS.

Union Manufacturing Co., 1,000 street numbers .	\$45.00
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CONCRETE.

Charles H. Robie Co., 3,109.62 square yards . .	\$1,691.63
Contract for repairing certain streets . . .	337.50
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	\$2,029.13
John T. Underhill & Co., 3,353.91 square yards .	\$1,838.97

The amount of work done by this department during the year is as follows :

Number of orders for surveys, street lines, and grades	1,044
for sewer grades	120
for paving grades	59
for street railway grades	1
for Pine Grove cemetery grades	31
for Valley cemetery grades	3
for profile levels	47
Total number of orders	1,305

Levels for profiles for establishing grades, 39,657 feet, equal to 7.51 miles. These profiles, having three lines of levels on each street, make a total distance actually leveled of 118,971 feet.

	Feet.
Levels for sewer profiles	13,683
for other center profiles	3,460
in Pine Grove cemetery	150
in Valley cemetery	245
in Derryfield park	4,643
Other levels	17,478
Total levels taken	39,659
Equal to 7.51 miles.	

	Sq. Feet.
Levels for cross-section	315,000
	Feet.
Surveys of streets and street lines	95,680
in Pine Grove cemetery	11,700
in Valley cemetery	150
in Derryfield park	5,280
for street numbers	38,190
Other surveys	18,400
Total surveys made	179,400
Equal to 33.97 miles.	

	Feet
Street lines marked on ground	47,606
Lines of lots and avenues, Pine Grove cemetery	15,580
of lots and avenues, Valley cemetery	150
of avenues, Stark park	2,220
of avenues, Derryfield park	11,000
for gutters	20,108
for curbs	5,545
for sewers	20,534
for street railway	6,000
Other lines	15,800

Total length of lines marked on ground 144,543
 Equal to 27.86 miles.

	Feet.
Grades set for sidewalks	26,603
for gutters	20,108
for curbs	5,545
for sewers	20,534
for street railway tracks	150
for building streets	36,724
in Pine Grove cemetery	3,477
in Valley cemetery	228
in Stark park	1,950
in Derryfield park	6,076
Other grades	2,089

Total length of grades set 123,484
 Equal to 23.39 miles.

	Feet.
Lot owners looked up	37,863
Equal to 7.17 miles.	

BATTERS SET.

Calef road, cemetery fence.

Hall street, culvert.

Harrison street, two culverts.

Myrtle street, culvert.

River road, bank wall.

City ledge, crusher plant.

Old lots restaked in Pine Grove cemetery	30
New lots laid out in Pine Grove cemetery	156
Public ranges laid out in Pine Grove cemetery	13
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Total cemetery lots laid out	199
Street numbers assigned and put on	422
replaced	61
assigned but not put on	37
changed	15
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Total	535

PLANS AND PROFILES MADE FOR SIDEWALK GRADES.

Amherst, Elm to Maple. Two plans.

Amherst, Ashland to Beacon.

Chase avenue, Hospital road to brook.

Chestnut, Merrimack to Pearl. Three plans.

Glenwood avenue, Mammoth road to Woodland avenue. Two plans.

Harrison, Maple to Belmont. Two plans.

Hayes avenue, Old Falls road to Chase avenue.

Hayward, Wilson to Taylor. Two plans.

Highland Park avenue, Candia road to Concord & Portsmouth Railroad.

Lake avenue, Hall road to Hanover.

Longwood avenue, Mammoth road to Woodbine avenue.

Mystic avenue, Candia road to Concord & Portsmouth Railroad.

Oakland avenue, Woodland avenue to Revere avenue.

Orchard avenue, Candia road to Concord & Portsmouth Railroad.

Prospect, Russell to Belmont. Two plans.

Revere avenue, Candia road to Concord & Portsmouth Railroad.

Union, Auburn to Webster. Six plans.

Wayland avenue, Mammoth road to Revere avenue.

Woodbine avenue, Candia road to Concord & Portsmouth Railroad.

Woodland avenue, Candia road to Concord & Portsmouth Railroad.

Total plans and profiles, 32.

SEWER PLANS AND PROFILES.

Elm west back, Auburn to Spring. Three plans.

Hanover south back, Union to east of Maple.

Hanover, Lincoln to Wilson.

Hanover, Wilson to Beacon.

Manchester south back, Union to Maple.

Monroe, Elm to River road.

Prospect, Russell to Hall.

Ray, Adams, Union, and Ray brook section. Four plans.

River road, Webster to Clarke.

Russell, Myrtle to Gore.

Schuyler, Main to Cartier east back.

South Main, Granite to Milford. Two plans.

Total sewer plans, 18.

NUMBERING PLANS.

Coolidge avenue, Amory to Goffstown road. Seven plans.

Hancock, Brown avenue to Concord & Montreal Railroad.

Hiram, Blaine to Cleveland.

Nutt road, Elm to Beech. Five plans.

Plummer, Pine to Union. Two plans.

Total numbering plans, 16.

MISCELLANEOUS PLANS.

Beech and Cilley road, lots owned by Weston, Shirley & Bell.
Copy.

Cilley road, Union and Shasta streets, land owned by Waterman Smith. Copy.

East Manchester schoolhouse, showing walks.

Elm, South Manchester hose house. Plan of land taking.

Hayward, land of S. G. Fletcher. Copy.

Jewett, Mason, and Young, land of H. H. Young. Copy.

Main to Merrimack river, land of Wolf & Wagner. Copy.

Nutt road, Union and Shasta, land of Waterman Smith. Copy.

Nutt road, plan of Brown heirs' land. Copy.

Porter, Huse, Cilley, and Mammoth roads, and Maynard avenue. Plan of Maynard land.

Vinton street, Taylor to Jewett, land of Brown and Stevens. Copy.

Total miscellaneous plans, 11.

WORKING PLANS.

Beech, Gore to Clark. Profile.

Bridge, Hall to Mammoth road. Profile.

Bridge street extension, Mammoth road to Candia road. Location of.

Derryfield park. Profile of circle.

East Manchester schoolhouse, showing walks.

Elm, Elm east back, and Elm west back, from Bridge to Auburn.

Front, eddy to Black brook. Center profile.

Hanover, Beech to Maple. Gutter profile.

Liberty east back, North to Webster. Sewer profile.

Lowell and Bridge. Location of stone bounds.

Pearl street, schoolhouse. Location and plan of lot.

Pennacook, North, Walnut, and Canal. Section plan.

Pine Grove cemetery extension. Land of C. C. Webster.

Pine Grove cemetery. Chapel lawn.

Pine Grove cemetery. Swedish lawn.

Plummer, Nutt road to Union. Plummer land, South Manchester.

Sagamore, sketch of culvert.

Shasta, Beech to Lincoln. Profile.

Spruce south back, Elm east back to Chestnut west back.

Sewer profile.

Wilson street. Plan of culvert.

Total working plans, 20.

TRACINGS.

Beech, Salmon to Amoskeag Co.'s line.

Belmont, Pearl to Old Bridge street.

Cilley road, Beech to Maple. Land of James A. Weston.

Profile.

Derryfield park, cross section of a part of.

Elm, South Manchester hose house. Plan of land taking.

Hayward, Hall to Belmont.

Mason, Hayward to Somerville.

Mead, Belmont to Hall.

New Hampshire Improvement Co.'s and Wolf & Wagner's land.

Pearl street, schoolhouse lot.

Pine Grove cemetery. Chapel lawn.

Pine Grove cemetery. Chapel lawn. Lots for treasurer.

Pine Grove cemetery. Part of Chapel lawn.

Pine Grove cemetery. Riverside lawn.

Pine Grove cemetery. Swedish lawn. Two plans.

Pine Grove cemetery. Lots between Oxel and Locust avenues.

Plummer, Nutt road to Union.

Sagamore. Sketch of culvert.

Salmon, Walnut to Beech.

Second street extension, to Bedford line.

Webster, schoolhouse addition. Two plans.

Winter, land of Baldwin and Wallace.

Total tracings, 24.

BLUE PRINTS.

City of Manchester, showing east side sewers. Two plans.

City of Manchester, showing west side sewers. Four plans.

Pearl street, schoolhouse fence.

Pine Grove cemetery. Chapel lawn. Seven plans.

Pine Grove cemetery. Part of Chapel lawn.

Pine Grove cemetery. Riverside lawn. Four plans.

Pine Grove cemetery. Swedish lawn. Four plans.

Pine Grove cemetery. Section east of Pine lawn. Two plans.

Plummer. Plan of Plummer land.

Second street extension, to Bedford line.

South Main. Profile for bridge. Eighteen plans.

Total blue prints, 45.

MAPS.

City of Manchester, east side, showing sewers. Tracing.

City of Manchester, west side, showing sewers. Two tracings.

Pine Grove cemetery. Lots and avenues.

Pine Grove cemetery. Lots and avenues. Two tracings.

Total maps, 7.

Fifty-seven plans of lots in Pine Grove cemetery have been made in the new book for the city treasurer; and 10 sheets of plans in the sewer book.

Total of all plans made, 240.

Seven plans are under way which will be completed during the year.

Plans made over in sewer book, 10.

Sewer plans brought up to date, 65.

Numbering sheets brought up to date, 67.

Plans lettered and finished, 15.

Plans made for the establishment of grade on laid-out streets, 40,051 feet.

Plans made for the establishment of grade on streets not laid out, 3,301 feet.

Total, 43,352 feet, equal to 8.21 miles.

STREET GRADES ESTABLISHED IN 1894.

No. of Plan.	STREET.	LOCATION.	Length in ft.	Order passed.
9	Amherst ...	Pine to Union	457	May 1
984	B	Milford to south of A	455	June 5
129	Beaumont ...	Kelley southerly.....	350	May 1
4083	Beech	Cedar to Valley	1,620	July 3
784	Cartier.....	Kelley to Amory	650	June 5
887	Cartier.....	Sullivan southerly.....	335	Sept. 4
4135	Cilley road..	Beech to Wilson	1,900	May 1
4047	Dubuque	Amory to Kelley.....	650	Sept. 26
1071 } 1072 }	Harrison ...	Maple to Belmont	2,382	Sept. 10
4089	Kelley	Cartier to Lorraine.....	1,600	Sept. 26
963	Merrimaek .	Beacon to Hanover.....	1,492	July 3
988	Page	Hanover to Candia road	1,640	Sept. 10
4008	Rimmon	Amory to Kelley.....	650	Sept. 26
4130	Sagamore...	Walnut to Oak	1,105	Nov. 9
Roll	Union	Clarke to 300 feet north of Trenton	2,045	Oct. 2
62	Valley	Belmont easterly.....	647	June 5
64	Valley	Jewett easterly.....	570	Sept. 4
			*18,548	

* Equal to 3.512 miles.

As both sides of the street are shown by the plans, this makes 37,096 feet of grade established, or 7.025 miles.

SEWERS BUILT

STREET.	LOCATION.	Material.	Size in inches.
Amherst.....	Chestnut to Pine.....	Akron ..	12
Belmont.....	From Valley northerly.....	" ..	10
Belmont.....	From Lake avenue northerly	" ..	8
Bridge.....	Russell to Warren.....	" ..	24
Bridge.....	Russell to Warren	Portland	24
Bridge.....	Warren to Ashland.....	Akron ..	20
Bridge.....	Warren to Ashland.....	Portland	20
Bridge.....	Hall to Belmont	Akron ..	12
Bridge.....	At Hall.....	" ..	10
Canton.....	From Spruce southerly.....	" ..	12
Chestnut west back.....	From Spruce northerly	" ..	12
Cypress.....	From Hayward southerly	" ..	10
Dearborn.....	From south of Summer southerly....	" ..	10
Elm west back.....	Merrimack to Market.....	" ..	12
Elm west back.....	Merrimack to Market.....	Portland	12
Elm west back.....	Market to Stark.....	Akron & Portland	15
Elm west back.....	Stark to Spring.....	Akron ..	15
Elm west back.....	From Dean northerly.....	" ..	12
Green.....	Pine to Pine east back.....	" ..	20
Green south back.....	From Pine east back easterly.....	" ..	12
Green south back.....	From Pine east back easterly.....	Portland	12
Grove.....	From Watson easterly	Akron ..	10
Grove south back.....	From Pine east back easterly.....	" ..	12
Grove south back.....	From Pine east back easterly.....	Portland	12
Gore	Ash east back to Maple.....	" ..	12
Hall.....	Mead to Pearl.....	Akron ..	24
Hall.....	Pearl to Orange.....	" ..	18
Hall.....	Orange to Myrtle.....	" ..	15
Hall.....	From Mead southerly.....	" ..	10

IN 1894.—EAST SIDE.

Length in feet, new.	Length in feet, relaid.	Manholes.	Lampholes.	House Y's.	Cesspool Y's.	Total cost.	Cost per foot.	When started.	When finished.	Foreman.
.....	317	2	..	11	2	\$293.82	\$0.927	Sept. 18	Sept. 22	Pat Murphy.
255	.....	1	4	4		87.76	.344	July 25	July 28	Tim Clifford.*
186	.....	1	4	....		44.19	.237	July 25	July 25	" "
.....	189	1	..	8	2	530.84	2.540	Sept. 10	Sept. 14	George M. Hobbs.
.....	20									
.....	363	1	..	18	3	928.90	2.293	Sept. 14	Sept. 26	John Kelley.
.....	42									
347	16	1	..	14	6	471.99	1.300	Aug. 14	Aug. 20	" "
.....	8	..	..	..	..	10.40	1.300	Aug. 14	Aug. 20	" "
148	.....	1	5	1		213.79	1.438	Dec. 19	Dec. 22	" "
9	.....	..	..	..	..	13.84	1.537	Sept. 27	Oct. 1	" "
132	.....	..	..	3	1†	93.47	.708	Oct. 17	Oct. 20	Charles Francis.
118	.....	..	..	5	....	93.59	.793	Nov. 7	Nov. 13	" "
.....	31	..	..	4	..	423.88	1.258	April 11	April 16	John Kelley.
.....	306	1	..	18	3					
.....	248	1	..	11	1	1,315.38	1.453	April 11	April 26	" "
.....	657	4	..	28	8					
70	.....	..	..	3	....	107.15	1.530	June 8	June 9	" "
126	.....	1	..	4	....	616.31	4.891	Nov. 9	Nov. 13	" "
238	36	..	1	12	....	890.05	3.244	Nov. 5	Nov. 26	" "
.....										
49	.....	1	1	....		42.11	.859	Nov. 20	Nov. 22	Charles Francis.
232	65	..	1	12	....	922.76	3.107	Dec. 1	Dec. 7	George M. Hobbs.
.....										
137	.....	1	9	....		195.66	1.428	May 10	May 16	" " "
273	.....	2	..	10	....	899.07	3.293	Aug. 7	Aug. 13	" " "
312	.....	1	..	13	....	1,313.12	4.209	Aug. 13	Aug. 28	" " "
270	.....	1	..	10	2	1,119.24	4.145	Aug. 28	Oct. 11	John Kelley.
190	.....	1	7	2		191.15	1.006	Nov. 9	Nov. 13	" "

* Excavating done by private individuals.

† Connected with private drain.

SEWERS BUILT IN 1894.

STREET.	LOCATION.	Material.	Size in inches.
Hall.....	Spruce to Spruce south back	Akron ..	10
Lake avenue.....	From Elm easterly.....	" ..	15
Lake avenue.....	From Elm easterly.....	" ..	12
Liberty east back.....	From Salmon southerly.....	" ..	10
Liberty east back.....	From Webster southerly.....	" ..	10
Malvern	From south of Lowell southerly.....	" ..	10
Mile brook.....	Bridge to Hall.....	" ..	24
Munroe	From River road easterly.....	" ..	12
Munroe	From River road easterly.....	" ..	10
Munroe	From River road easterly.....	Portland	10
Myrtle	From Hall easterly.....	Akron ..	10
North	Bay to Bay east back.....	" ..	10
Orange.....	From Hall westerly.....	" ..	10
Pearl.....	From Russell easterly.....	" ..	10
Pine.....	From Amherst northerly.....	" ..	12
Pine.....	Auburn to Green	" ..	20
Pine.....	Auburn to Green	Portland	20
Pine east back... ..	Green to Grove south back	Akron ..	15
Pine east back.....	From Amherst northerly	" ..	10
Prospect.....	From Russell westerly.....	" ..	10
Prospect.....	From Russell westerly.....	Portland	10
Prospect.....	Russell to Linden.....	Akron ..	24
Prospect.....	Russell to Linden.....	Iron....	24
Prospect.....	Linden to west of Hall.....	Akron ..	12
Prospect.....	From Hall westerly.....	Portland	12
River road.....	Webster to Munroe.....	Brick ...	24x36
Russell.....	From Harrison southerly.....	Akron ..	8
Sagamore south back...	From Union westerly.....	" ..	12
Salmon	Union east back to Walnut.....	" ..	12
Spruce.....	From Chestnut westerly.....	" ..	10

— EAST SIDE.— *Continued.*

Length in feet, new.	Length in feet, relaid.	Manholes.	Lampholes.	House Y's.	Cesspool Y's.	Total cost.	Cost per foot.	When started.	When finished.	Foreman.
162	4		\$76.49	\$0.472	Aug. 27	Aug. 27	John Connor.
22	1	}	261.883	1.271	June 4	June 8	John Kelley.
176	8	1	..	6						
132	1	1	6	....	202.23	1.532	Nov. 28	Dec. 3	" "
231	1	..	9	....	164.78	.713	April 30	May 5	" "
92	1	4	....	84.22	.915	May 21	May 22	George M. Hobbs.
807	3	1	6	4	2,692.94	3.337	July 18	Aug. 7	" " "
200	1	..	8	..	552.73	1.083	July 11	Aug. 2	John Kelley.
226	1	..	8	2					
84	1	3	..					
224	1	10	....	587.09	2.621	Oct. 11	Oct. 26	" "
192	1	..	4	....	159.181	.829	Sept. 8	Sept. 12	John Connor.
262	1	..	12	2	515.91	1.969	Sept. 1	Sept. 10	John Kelley.
138	1	4	....	105.21	.762	Aug. 10	Aug. 14	" "
.....	44	.....	.....	1		41.38	.947	Sept. 22	Sept. 22	Pat Murphy.
368	}	1	..	9	....	1,587.86	2.944	Oct. 12	Nov. 1	George M. Hobbs.
172										
402	2	..	9	4	1,465.85	3.646	Nov. 5	Dec. 5	" " "
175	1	10	....	188.07	1.074	July 14	July 17	" " "
90	}	1	3	169.79	1.369	Oct. 15	Oct. 18	John Kelley.
34										
439	1	..	18	1	2,058.96	4.565	May 5	Aug. 1	George M. Hobbs.
12					
612	28	5	3,092.44	3.994	May 5	Aug. 1	{ " " "
162	1	..	5	2					
616	2	..	16	3	3,863.76	6.272	July 11	Aug. 2	John Kelley.
66	1	.....	.....	90.40	1.370	Oct. 17	Oct. 18	" "
.....	174	1	..	9	1	398.12	2.288	Aug. 24	Sept. 3	" "
124	1	..	3	1	246.78	1.990	Aug. 21	Aug. 27	" "
110	1	..	4	3	181.65	1.651	Sept. 27	Oct. 1	" "

SEWERS BUILT IN 1894.

STREET.	LOCATION.	Material.	Size in inches.
Spruce	Weston to Canton.....	Akron ..	20
Spruce	Weston to Canton.....	Iron	20
Spruce	Weston to Canton.....	Akron ..	15
Spruce	Weston to Canton.....	" ..	12
Spruce	Weston to Canton.....	Portland	12
Spruce south back.....	Elm east back to Chestnut west back	Akron ..	12
Spruce south back.....	Elm east back to Chestnut west back	" ..	10
Union east back.....	From Webster southerly	Portland	10
Webster.....	Walnut to Beech	Akron ..	15
Webster.....	Walnut to Beech	" ..	8

— EAST SIDE.— *Concluded.*

Length in feet, new.	Length in feet, relaid.	Manholes.	Lampholes.	House Y's.	Cesspool Y's.	Total cost.	Cost per foot.	When started.	When finished.	Foreman.
46	.....	..	..	2	..	\$1,191.62	\$1.508	Dec. 7	Dec. 19	John Kelley.
12	.....	..	..	.....	..
77	.....	1	..	4	..					
567	.....	2	..	18	3					
88	.....	..	..	2	..	455.16	1.300	Sept. 27	Oct. 5	" "
.....	200	1	..	17	1					
.....	150	1	..	14	1					
100	.....	1	1	4	....	125.93	1.259	May 3	May 5	George M. Hobbs.
195	.....	..	1	7	2	640.40	2.521	April 25	May 5	" " "
59	.....	..	..	5	..					
10,667	2,773	42	19	377	82	\$31858.144	.....	.....	.....	.....

SEWERS BUILT IN

STREET.	LOCATION.	Material.	Size in inches.
Clinton	From Main westerly.....	Akron ..	10
Clinton	From west of Main to West.....	" ..	10
Conant.....	Rimmon to Montgomery	" ..	15
Dubuque.....	Wayne to Putnam.....	" ..	12
Ferry	From Main easterly.....	" ..	10
Hill	From Schiller southerly.....	" ..	10
Main.....	Piscataquog river to Winter	Steel....	48
Main	Winter to Granite.....	Brick....	36x54
Main.....	Piscataquog river to Mast.....	Steel ...	24
Main	Piscataquog river to Mast	Brick....	24x36
Montgomery.....	From Conant northerly.....	Portland	12
Rimmon.....	Amory to south of Wayne.....	Akron ..	10
Schiller.....	Merrimaek river to west of Hill.....	Iron....	20
Schiller	Merrimack river to west of Hill	Akron ..	15
South of Schiller	From Hill easterly	" ..	10
Wayne.....	From Dubuque easterly.....	" ..	12
West.....	From Clinton northerly	" ..	10
West Hancock.....	Dickey to Wheelock.....	" ..	12
West Hancock	From Wheelock westerly.....	" ..	10

1894.— WEST SIDE.

Length in feet, new.	Length in feet, relaid.	Manholes.	Lampholes.	House Y's.	Cesspool Y's.	Total cost.	Cost per foot.	When started.	When fin- ished.	Foreman.
.....	50	.....	.....	2		\$86.29	\$1.725	Aug. 24	Aug. 25	Frank Bennett.
.....	473	3	..	19	2	858.89	1.816	Dec. 6	Dec. 22	" "
544	.....	2	..	15	4	634.18	1.165	June 1	June 16	" "
533	.....	2	..	19	.....	458.03	.859	May 16	May 26	" "
135	.....	.....	.....	.....	.....	90.70	.672	June 28	June 30	" "
329	.....	1	..	11	.....	112.12	.3407	Aug. 13	Sept. 10	John Labonta.†
.....	60	1	..	.....	.....	673.28	11.221	June 28	July 2	Frank Bennett.
.....	1,067	5	..	42	12	7,586.53	7.112	July 2	Oct. 6	" "
.....	28	1	..	.....	.....	743.49	3.812	Aug. 24	.....	" "
.....	167	1	..	4	3					
451	.....	1	1	18	.....	509.12	1.129	June 1	June 16	" "
676	.....	2	1	28	2	387.48	.573	June 18	June 22	" "
12	.....	.....	.....	.....	.....	386.764	.611	Aug. 13	Sept. 10	John Labonta.†
621	.....	2	..	14	4					
73	.....	*1	..	1	.....	29.43	.403	Sept. 9	Sept. 10	" "
71	.....	1	..	.....	.....	73.985	1.042	May 16	May 26	Frank Bennett.
16	.....	8	..	.....	.....	43.58	1.816	Dec. 20	Dec. 22	" "
678	.....	3	..	19	4	1,422.85	1.647	Oct. 8	Nov. 21	" "
180	.....	1	..	7	..					
4,319	1,853	27	2	197	34	\$13992.339	.....	.....	.....	.....

* Cesspool manhole.

† Excavating done by private individuals.

DETAIL COST OF SEWERS

STREET.	LOCATION.	Length.	Began.	Completed.	Cost of pipe.
Amherst.....	Chestnut to Pine.....	317	Sept. 18	Sept. 22	\$64.14
Belmont.....	From Valley northerly	255	July 25	July 28	40.55
"	" Lake avenue northerly	186	" 25	" 25	18.30
Bridge.....	Russell to Warren	209	Sept. 10	Sept. 14	156.56
"	Warren to Ashland.....	405	" 14	" 26	211.02
"	Hall to Belmont	363	Aug. 14	Aug. 20	53.52
"	At Hall	8	" 14	" 20	1.07
Canton.....	From Spruce southerly	148	Dec. 19	Dec. 22	29.77
Chestn't W. B.	" " northerly	9	Sept. 27	Oct. 1	1.57
Cypress.....	" Hayward southerly.....	132	Oct. 17	" 20	20.95
Dearborn.....	" south of Summer southerly ..	118	Nov. 7	Nov. 13	17.72
Elm west b'ck	Merrimack to Market	337	April 11	April 16	78.79
"	Market to Spring	905	" 11	" 26	272.77
"	From Dean northerly	70	June 8	June 9	13.51
Green.....	Pine to Pine east back	126	Nov. 9	Nov. 13	64.57
" s'th b'k	From Pine east back easterly	274	" 5	" 26	56.19
Grove.....	" Watson easterly	49	" 20	" 22	8.12
" s'th b'k	Pine east back easterly	297	Dec. 1	Dec. 7	58.00
Gore.....	Ash east back to Maple	137	May 10	May 16	29.84
Hall.....	Mead to Pearl	273	Aug. 7	Aug. 13	198.54
"	Pearl to Orange	312	" 13	" 28	122.88
"	Orange to Myrtle	270	" 28	Oct. 11	78.46
"	From Mead southerly.....	190	Nov. 9	Nov. 13	29.00
"	Spruce to Spruce south back	162	Aug. 27	Aug. 27	22.91
Lake avenue..	From Elm easterly.....	206	June 4	June 8	40.77
Liberty E. b'k	" Salmon southerly.....	132	Nov. 28	Dec. 3	20.47
"	" Webster southerly.....	231	April 30	May 5	34.34
Malvern.....	" south of Lowell southerly..	92	May 21	" 22	14.83
Mile brook....	Bridge to Hall.....	807	July 18	Aug. 7	559.29
Monroe.....	From River road easterly.....	510	" 11	" 2	53.53
Myrtle.....	" Hall easterly	224	Oct. 11	Oct. 26	33.25
North.....	Bay to Bay east back	192	Sept. 8	Sept. 12	26.91
Orange.....	From Hall westerly	262	" 1	" 10	40.44
Pearl.....	" Russell easterly.....	138	Aug. 10	Aug. 14	20.05
Pine.....	" Amherst northerly	44	Sept. 22	Sept. 22	8.10
"	Auburn to Green	540	Oct. 12	Nov. 1	259.44
" east b'ek	Green to Grove south back	402	Nov. 5	Dec. 5	115.21
"	From Amherst northerly	175	July 14	July 17	27.72
Prospect.....	" Russell westerly	124	Oct. 15	Oct. 18	21.57
"	Russell to Linden.....	451	May 5	Aug. 1	338.49
"	Linden to Hall.....	774	" 5	" 1	151.73
River road....	Webster to Monroe	616	July 11	" 2	7.38
Russell.....	From Harrison southerly	66	Oct. 17	Oct. 18	6.70
Sagamore S. B	" Union westerly	174	Aug. 24	Sept. 3	11.62
Salmon.....	Union east back to Walnut.....	124	" 21	Aug. 27	26.31
Spruce.....	From Chestnut westerly.....	110	Sept. 27	Oct. 1	17.80
"	Weston to Canton	790	Dec. 7	Dec. 19	164.87
" s'th b'k	Elm east b'ek to Chestnut w'st bk	350	Sept. 27	Oct. 5	73.38
Union east b'k	From Webster southerly.....	100	May 3	May 5	14.99
Webster.....	Walnut to Beech.....	254	April 25	" 5	60.73
Totals ..	.....	13,440	.....	.....	\$3,798.68

REPORT OF THE CITY ENGINEER.

403

IN 1894.—EAST SIDE.

COST OF STOCK.						COST OF LABOR.			Total cost.	Cost per ft.
Cement	Brick.	Cast-ings.	Inci-d'ntals applied	Inci-d'ntals Prop.	Total.	Men.	Teams.	Total.		
\$5.95	\$17.95	\$14.20		\$21.30	\$123.54	\$158.28	\$12.00	\$170.28	\$293.82	\$0.927
2.38		.20		17.13	60.26	20.50	7.00	27.50	87.76	0.344
1.19		.20		12.50	32.19	9.00	3.00	12.00	44.19	0.237
9.52	13.29	7.00	\$13.00	14.04	213.41	310.43	7.00	317.43	530.84	2.540
9.52	13.29	7.00	26.00	27.20	294.03	620.87	14.00	634.87	928.90	2.293
5.95	8.19	7.20	13.24	24.39	112.49	339.00	20.50	359.50	471.99	1.300
.10				.53	1.70	8.00	.10	8.10	10.40	1.300
1.19		.20	5.46	9.93	46.55	162.74	4.50	167.24	213.79	1.438
.30				.60	2.47	11.00	.37	11.37	13.84	1.537
1.19			3.46	8.87	34.47	56.00	3.00	59.00	93.47	0.708
1.19			3.75	7.93	30.59	60.00	3.00	63.00	93.59	0.793
14.28	11.70	7.00	28.10	22.58	162.45	251.43	10.00	261.43	423.88	1.258
34.58	57.52	35.00	158.11	60.60	618.58	675.30	21.50	696.80	1,315.38	1.453
1.19			.50	4.70	19.90	80.25	7.00	87.25	107.15	1.530
22.61	21.10	7.00	70.07	8.46	193.81	405.00	17.50	422.50	616.31	4.891
2.38		.20	18.00	18.41	95.18	778.50	16.37	794.87	890.05	3.244
.50		.20		3.29	12.11	28.00	2.00	30.00	42.11	0.859
2.38		.20	7.47	19.96	88.01	811.50	23.25	834.75	922.76	3.107
1.19	.33	.20		9.10	40.66	151.50	3.50	155.00	195.66	1.428
7.14	9.70	14.00	28.91	18.34	276.63	600.44	22.00	622.44	899.07	3.293
7.14	9.45	7.00	33.04	20.97	200.48	1,102.14	10.50	1,112.64	1,313.12	4.209
5.95	9.45	7.00	28.59	18.14	147.59	965.65	6.00	971.65	1,119.24	4.145
2.38		.20		12.76	44.35	133.80	13.00	146.80	191.15	1.006
1.19				10.89	34.99	38.00	3.50	41.50	76.49	0.472
5.95	8.37	9.06	.50	13.84	78.49	179.89	3.50	183.39	261.88	1.271
4.76	6.93	7.20		8.87	48.23	147.00	7.00	154.00	202.23	1.532
5.95	8.45	7.00		15.42	71.16	90.62	3.00	93.62	164.78	0.713
1.19	.32	.20		6.18	22.72	58.00	3.50	61.50	84.22	0.915
17.85	29.10	21.00	60.48	54.23	741.95	1,912.99	38.00	1,950.99	2,692.94	3.337
11.90	11.34	14.20		34.27	125.24	408.24	19.25	427.49	552.73	1.083
3.57		.20	23.72	15.05	75.79	500.80	10.50	511.30	587.09	2.620
1.19	9.45	7.00	1.45	6.18	52.18	93.00	14.00	107.00	159.18	0.829
3.54	5.67	7.00	25.00	17.61	99.26	392.15	24.50	416.65	515.91	1.969
1.19		.20		9.27	30.71	71.00	3.50	74.50	105.21	0.762
.60				2.96	11.66	27.72	2.00	29.72	41.38	0.940
23.80	14.80	7.00	73.04	36.28	414.36	1,135.00	38.50	1,173.50	1,587.86	2.944
26.18	34.65	14.00	12.70	27.01	229.75	1,210.60	25.50	1,236.10	1,465.85	3.646
3.57	5.67	7.20	3.15	11.76	59.07	115.00	14.00	129.00	188.07	1.074
1.19		.20		8.33	31.29	135.00	3.50	138.50	169.79	1.339
13.09	6.30	7.20	248.05	30.30	643.43	1,384.73	30.80	1,415.53	2,058.96	4.565
11.90	22.68	7.20	428.14	52.01	673.66	2,365.88	52.90	2,418.78	3,092.44	3.994
183.64	409.94	14.40	310.89	41.39	969.64	2,785.62	108.50	2,894.12	3,863.76	6.272
1.19		.20	.63	4.43	13.15	75.75	1.50	77.25	90.40	1.370
7.14	13.54	14.00	16.13	11.69	74.12	310.00	14.00	324.00	398.12	2.288
5.95	8.19	7.00		8.33	55.78	178.50	12.50	191.00	246.78	1.990
4.76	5.67	7.00		7.39	42.62	132.03	7.00	139.03	181.65	1.651
22.61	37.80	21.00	2.25	53.09	301.62	870.00	20.00	890.00	1,191.62	1.508
11.90	13.86	14.00		23.52	136.66	301.00	17.50	318.50	455.16	1.300
3.57	8.45	7.20		6.72	40.93	81.50	3.50	85.00	125.93	1.259
2.38		.20	190.85	13.10	267.26	355.64	17.50	373.14	640.40	2.521
\$523.95	\$833.15	\$314.86	\$1,834.68	\$891.85	\$8,197.17	\$23,094.99	\$727.14	\$23,822.13	\$32,019.30	.....

DETAIL COST OF SEWERS IN

STREET.	LOCATION.	Length.	Began.	Completed.	Cost of pipe.
Clinton	From Main westerly	50	Aug. 24	Aug. 25	\$7.33
"	From west of Main to West.....	473	Dec. 6	Dec. 22	74.63
Conant	Rimmon to Montgomery.....	544	June 1	June 16	150.39
Dubuque	Wayne to Putnam	533	May 16	May 26	101.19
Ferry	From Main easterly.....	135	June 28	June 30	19.18
Hill	From Schiller southerly	329	Aug. 13	Sept. 10	47.50
Main	Piscataquog river to Winter.....	60	June 28	July 2	408.81
"	Winter to Granite	1,067	July 2	Oct. 6	51.43
"	Piscataquog river to Mast	195	Aug. 24	.....	128.81
Montgomery..	From Conant northerly	451	June 1	June 16	86.90
Rimmon	Amory to south of Wayne	676	" 18	" 22	100.40
Schiller	Merrimack river to west of Hill..	633	Aug. 13	Sept. 10	169.54
So. of Schiller	From Hill easterly	73	Sept. 9	" 10	10.06
Wayne	From Dubuque easterly.....	71	May 16	May 26	12.37
West	From Clinton northerly	24	Dec. 20	Dec. 22	2.13
West Hancock	Dickey to west of Wheelock	858	Oct. 8	Nov. 21	154.54
Total length.....		6,172			
Total cost of sewers, East Side.....					\$3,798.68
Total cost of sewers, West Side.....					1,525.21
Total cost of all sewers					\$5,323.89

1894.—WEST SIDE.

COST OF STOCK.						COST OF LABOR.			Total cost.	Cost per ft.
Cement	Brick.	Cast-ings.	Inci-d'ntals applied	Inci-d'ntals Prop.	Total.	Men.	Teams.	Total.		
\$0.60	.....	.....	.....	\$3.36	\$11.29	\$71.50	\$3.50	\$75.00	\$86.29	\$1.725
17.85	\$26.46	\$21.00	\$66.57	31.79	238.30	579.59	50.00	620.59	858.89	1.816
11.90	20.48	14.00	.85	36.56	234.18	370.00	30.00	400.00	634.18	1.165
13.09	16.80	14.00	.....	35.82	180.90	252.13	25.00	277.13	458.03	0.859
1.19	1.26	.....	.....	9.07	30.70	58.00	2.00	60.00	90.70	0.672
5.95	7.56	7.00	.....	22.11	90.12	22.00	.....	22.00	112.12	0.340
7.14	18.90	7.00	.....	4.03	445.88	227.40	.....	227.40	673.28	11.221
392.70	1,419.77	14.00	185.23	71.70	2,134.83	5,251.70	200.00	5,451.70	7,586.53	7.112
39.27	121.65	14.00	.....	13.10	316.83	416.66	10.00	426.66	743.49	3.812
6.54	10.71	10.00	.....	16.33	130.48	358.64	20.00	378.64	509.12	1.129
7.14	11.34	17.60	.....	51.00	187.48	190.00	10.00	200.00	387.48	0.573
11.90	26.46	14.00	.....	42.54	264.44	122.32	.....	122.32	386.76	0.611
1.19	3.78	.....	.....	4.90	19.93	7.50	2.00	9.50	29.43	0.403
1.19	8.40	7.00	.....	4.77	33.73	36.75	3.50	40.25	73.98	1.042
.50	.....	.....	.....	1.62	4.25	37.75	1.58	39.33	43.58	1.816
21.42	30.24	28.00	66.15	57.66	358.01	1,014.84	50.00	1,064.84	1,422.85	1.647
\$539.57	\$1,723.81	\$167.60	\$318.80	\$406.36	\$4,681.35	\$9,007.78	\$407.58	\$9,415.36	\$14,096.71	.....
523.95	833.15	314.86	1,834.68	891.85	8,197.17	23,094.99	727.14	23,822.13	32,019.30	.....
\$1,063.52	\$2,556.96	\$482.46	\$2,153.48	\$1,298.21	\$12,878.52	\$32,102.77	\$1,134.72	\$33,237.49	\$46,116.01	.....

PIPE REMOVED WHERE NEW SEWERS HAVE BEEN BUILT.

STREET.	LOCATION.	Material.	Size in inches	Length in feet.
Amherst.....	Chestnut to Pine	Cement.	9	317
Bridge	Russell to Ashland.....	Akron ..	10	614
“	At Hall	“ ..	10	24
Clinton	Main to West	Cement.	9	523
Elm west back.....	Merrimack to Market.....	“	12	337
“ “	Market to Spring.....	Akron ..	12	905
Lake avenue	East of Elm east back.....	“	8	8
Main	Granite to Piscataquog river.....	Brick ..	24	1,127
“	Piscataquog river to Mast	“ ...	20	150
“	“ “ “	“ ...	18	43
Pine	Amherst northerly.....	Cement.	9	44
Sagamore south b'ck	From Union westerly.....	Akron ..	12	174
Spruce south back...	Elm east back to Chestnut west b'k	Cement.	9	330
West.....	At Clinton.....	“	12	8
Total .....	.....	.....	.....	4,604

SUMMARY OF SEWERS BUILT IN 1894.

	Feet.
Total 36 x 54 inches, brick	1,067
24 x 36 inches, brick	783
48-inch steel pipe	60
24-inch steel pipe	28
24-inch Akron pipe	1,708
24-inch Portland pipe	20
24-inch iron pipe	12
20-inch Akron pipe	903
20-inch Portland pipe	214
20-inch iron pipe	24
18-inch Akron pipe	312
15-inch Akron pipe	2,912
15-inch Portland pipe	124
12-inch Akron pipe	4,795
12-inch Portland pipe	1,245
10-inch Akron pipe	4,876
10-inch Portland pipe	218
8-inch Akron pipe	311
	<hr/>
	19,612

Following is the total amount of sewerage in the city, January 1, 1895:

	Feet.
8-inch Akron pipe	8,062
10-inch Akron pipe	55,700
12-inch Akron pipe	67,763
15-inch Akron pipe	19,342
18-inch Akron pipe	3,964
20-inch Akron pipe	6,910
24-inch Akron pipe	5,256
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Total Akron pipe	166,997

Equal to 31.628 miles.

	Feet.
8-inch Portland pipe, old	90
12-inch Portland pipe, old	3,990
18-inch Portland pipe, old	770
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Total Portland pipe, old	4,850

Equal to 0.919 miles.

	Feet.
10-inch Portland pipe, new	7,605
12-inch Portland pipe, new	4,478
15-inch Portland pipe, new	4,557
18-inch Portland pipe, new	395
20-inch Portland pipe, new	3,345
24-inch Portland pipe, new	3,284
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Total Portland pipe, new	23,664

Equal to 4.482 miles.

	Feet.
9-inch cement pipe	12,579
12-inch cement pipe	21,175
15-inch cement pipe	490
18-inch cement pipe	860
24-inch cement pipe	735
16 x 24 inches cement pipe	1,697
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Total cement pipe	37,536

Equal to 7.11 miles.

	Feet.
10-inch earthen pipe	1,175
12-inch earthen pipe	2,545
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Total earthen pipe	3,720

Equal to 0.704 miles.

	Feet.
18-inch brick sewers	5,532
24-inch brick sewers	2,060
29-inch brick sewers	1,600
36-inch brick sewers	545

	Feet.
42-inch brick sewers	446
44-inch brick sewers	1,195
57-inch brick sewers	1,400
60-inch brick sewers	285
17 x 26 inches, brick sewers	1,506
20 x 30 inches, brick sewers	1,197
22 x 33 inches, brick sewers	387
24 x 36 inches, brick sewers	9,880
26 x 39 inches, brick sewers	514
29 $\frac{1}{4}$ x 44 inches, brick sewers	4,530
30 x 46 inches, brick sewers	1,360
32 x 48 inches, brick sewers	3,279
36 x 54 inches, brick sewers	1,067
40 x 44 inches, brick sewers	790
50 x 75 inches, brick sewers	712

Total brick sewers	38,285
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Equal to 7.25 miles.

	Feet.
8-inch iron pipe	24
12-inch iron pipe	24
14-inch iron pipe	24
20-inch iron pipe	86
24-inch iron pipe	24
36-inch iron pipe	277 $\frac{1}{2}$

Total iron pipe	459 $\frac{1}{2}$
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Equal to 0.087 miles.

	Feet.
24-inch steel pipe	28
48-inch steel pipe	372
Total	400

Equal to 0.076 miles.

Total in all sewers, 275,911 $\frac{1}{2}$ feet.

Equal to 52.256 miles.

The following shows the amount of concrete laid for the city in 1894, by the Charles H. Robie Company, under the direction of the street and park commission. The measurements relating thereto have been made by this department, and rendered as vouchers for the same.

STREET CROSSINGS.

LOCATION.	Square yards.	Price pr. yd.	Total cost.
Adams at Appleton.....	29.50	\$0.75	\$42.80
Adams at Appleton.....	29.24	.75	21.93
Amory at Beauport.....	30.13	.75	22.60
Arlington at Maple.....	30.94	.75	23.20
Beech at Gore.....	30.93	.75	23.20
Beech at Gore.....	30.84	.75	23.13
Blaine and Winter at Main.....	48.27	.75	36.20
Blodget at Chestnut.....	67.73	.75	50.80
Brook at Chestnut.....	27.38	.75	20.54
Cartier east back at Amory.....	18.89	.75	14.16
Dean avenue.....	28.37	.75	21.27
Dubuque at Amory.....	29.78	.75	22.34
Hanover at Elm.....	47.78	.75	35.84
Kelley at Beauport.....	29.60	.75	22.20
Liberty east back at Salmon.....	13.33	.75	10.00
Myrtle at Russell.....	28.80	.75	21.60
Nashua at East High.....	11.11	.75	8.33
North at Bay east back.....	13.33	.75	10.00
Orange south back at Chestnut.....	35.41	.37	13.13
Pearl south back at Chestnut.....	20.50	.75	15.37
Pine at Central south back.....	17.66	.75	13.24
Pine at Central.....	31.11	.75	23.33
Pine at Laurel.....	28.62	.75	21.46
Pine at Laurel south back.....	16.58	.75	12.40
Prospect at Russell.....	55.38	.75	41.53
Prospect at Russell.....	27.73	.37	10.26
Salmon at Union.....	59.73	.75	44.80
Union at Webster.....	39.22	.75	29.67
Union at Sagamore.....	33.42	.75	25.06
Union at Sagamore.....	30.58	.75	22.93
Union at Salmon south back.....	17.78	.75	13.34
Valley at Jewett.....	29.95	.75	22.46
Valley at Jewett east back.....	19.20	.75	14.40
Wayne at Dubuque (3).....	90.53	.75	67.90
Wayne at Dubuque east back.....	17.78	.75	13.34
Wayne at Rimmon east back (2).....	26.67	.75	20.00
Wayne at Rimmon.....	30.13	.75	22.60
Webster at Bay.....	30.22	.75	22.67
Webster at Liberty east back.....	17.77	.75	13.33
Totals.....	1,213.00	.....	\$885.69

SIDEWALKS.

LOCATION.	Square yards.	Price pr. yd.	Total cost.
Amherst street, Pine to Pine east back.....	43.27	\$0.30	\$12.98
Amherst, from Pine east back to near Union.....	253.00	.30	75.90
Arlington, at Maple.....	24.47	.45	11.01
Blodget, at Chestnut.....	151.06	.45	6.77
Dean avenue, at Elm west back.....	12.34	.45	5.55
Main, at Bridge.....	133.70	.45	60.16
Merrimack, at Union.....	20.72	.45	9.32
Sagamore, west of Union (Bradbury's).....	30.67	.35	10.73
Totals	533.23	.....	\$192.42

ROADWAYS.

LOCATION.	Amount material	Price.	Total cost.
Chestnut, Amherst to Concord, recovered	1,271.99 sq. yds.	\$0.45	\$572.39
To patching and repairing :			
Chestnut, Merrimack to Amherst.....	22½ loads	15.00	337.50
Merrimack, Elm to Chestnut.....			
Union, Lowell to Concord.....			
Total			\$909.89 •

The following shows the amount of concrete laid for the city in 1894 by the Charles H. Robie Co., under the direction of the cemetery trustees :

LOCATION.	Square yards.	Price per yd.	Total cost.
Pine Grove cemetery, at superintendent's house..	91.40	\$0.45	\$41.13

The following shows the amount of concrete laid for the city in 1894 by John T. Underhill & Co., under the direction of the street and park commission. The measurements relating thereto have been made by this department and rendered as vouchers for the same :

STREET CROSSINGS.

LOCATION.	Square yards.	Price pr. yd.	Total cost.
Appleton at Elm (3).....	127.11	\$0.75	\$95.33
Beech at Lowell.....	66.22	.75	49.66
Beech at Lowell.....	66.40	.37	24.57
Beech east back at Lowell.....	15.94	.37	5.89
Belmont at Merrimack.....	52.28	.75	39.19
Central south back at Wilson.....	17.78	.75	13.33
Central south back at Wilson.....	36.18	.75	27.13
Chestnut at Cedar.....	37.15	.75	27.86
Concord at Belmont.....	20.08	.75	15.60
Dubuque at Wayne.....	30.04	.75	22.80
Elm at Webster north back.....	19.11	.75	14.33
Elm at T. W. Lane's, gutters and driveways.....	15.32	.75	11.49
Elm at Webster.....	45.09	.75	33.82
Lake avenue south back at Hall.....	17.51	.75	13.13
Lake avenue at Pine.....	28.89	.75	21.67
Linden at Arlington (4).....	107.13	.75	80.35
Linden at Myrtle.....	29.33	.75	22.00
Linden at Prospect (2).....	58.22	.75	43.66
Linden at Pearl.....	13.78	.37	5.10
Linden at Pearl.....	25.78	.75	11.33
Main at Amory (4).....	123.75	.75	92.81
McGregor Bridge east end ..	390.45	.37	144.47
McGregor west back at Amory.....	20.85	.37	7.71
Merrimack at Beech.....	19.28	.75	14.46
Merrimack at Pine.....	31.40	.75	23.55
Monroe, at Bartlett's and Willand's.....	11.61	.75	8.70
Pearl at Linden (3).....	79.91	.75	59.94
Pearl at Ashland.....	29.78	.75	22.33
Pearl at Warren.....	7.87	.37	2.91
Rimmon east back at Kelley.....	15.78	.75	11.83
Spruce at Hall.....	30.22	.75	22.66
Union at Appleton.....	29.51	.75	22.13
Union at Lowell.....	27.11	.75	20.33
Walnut at Webster.....	30.22	.75	22.67
Totals	1,677.08	.....	\$1,054.74

SIDEWALKS.

LOCATION.	Square yards.	Price per yd.	Total cost.
Beauport, at Thomas Bolton's.....	34.67	\$0.45	\$15.60
Belmont, at Merrimack....	3.80	.37	1.40
Dubuque, at Wayne.....	6.57	.45	2.96
Linden, at Myrtle.....	4.56	.45	2.05
Main, at Amory	31.98	.45	14.39
McGregor, at Bridge.....	17.17	.45	7.72
Monroe, at Bartlett's and Willand's.....	68.61	.35	25.01
Union, at Appleton	10.30	.45	4.63
Walnut, at Webster.....	2.52	.45	1.13
Totals.....	180.18	.....	\$74.89

The following shows the amount of concrete laid for the city in 1894 by John T. Underhill & Co., under the direction of the committee on lands and buildings and the cemetery trustees :

LOCATION.	Square yards.	Price per yd.	Total Cost.
Harvey District schoolhouse sidewalks.....	99.58	\$0.50	\$49.79
Main-street schoolhouse walks.....	160.31	.45	72.14
Main-street schoolhouse driveways.....	66.98	.37	24.78
Main-street schoolhouse basements.....	59.20	.45	26.64
Pearl-street schoolhouse driveways.....	277.76	.43	119.44
Pearl-street schoolhouse sidewalks.....	262.05	.34½	90.50
Webster-street schoolhouse driveways.....	43.28	.37	16.01
Webster-street schoolhouse sidewalks.....	147.35	.45	66.30
Webster-street schoolhouse driveways	238.92	.75	179.19
Valley cemetery walks.....	143.22	.45	64.49
Totals	1,498.65	.....	\$709.34

SUMMARY.

Concrete Laid by the Charles H. Robie Co.

	Square yards.	Total cost.
Crossings	1,213.00	\$885.69
Sidewalks	533.23	192.42
Roadways	1,271.99	909.89 *
Miscellaneous	91.40	41.13
Totals	3,109.62	\$2,029.13

* Includes contract price for patching.

Concrete Laid by John T. Underhill & Co.

	Square yards.	Total cost.
Crossings	1,677.08	\$1,054.74
Sidewalks	180.18	74.89
Miscellaneous.....	1,498.65	709.34
Totals	3,355.81	\$1,838.97

Total concrete laid by the city, 6,465.43 square yards, at a cost of \$3,868.10.

BRIDGES.

The following table gives the dimensions, material, and number of spans of the various bridges within the city limits:

LOCATION.	Length in feet.	Width of roadway	No. of walks.	Width of walks.	Material.	Arch- es or spans.
Amoskeag	765.5	20	1	5.5	Wood.	3
Bridge street, at canal	57	22.5	2	7	Iron.	1
Bridge st., McGregor and approaches	1,085	24	2	6	"	3
Cohas avenue, at Great Cohas.....	36	30.5	.....	.....	Stone.	2
Derry road, at Great Cohas.....	38	20	.....	.....	Wood.	1
Derry road, near Cohas avenue.....	20	17	.....	.....	"	1
Derry road, near town line.....	21	20.5	.....	.....	"
Dunbarton road, Black brook	25	17.5	.....	.....	"	1
Elm street, at railroad	89	29.5	1	4.5	"	1
Front street at Black br ok.....	16.5	33	.....	.....	"	1
Granite street, at canal.....	56.3	37.3	2	6	Iron.	1
Granite street, at river.....	465.7	26	2	5	Wood.	3
Harvey road, at Great Cohas.....	32	21	.....	.....	"	1
Island Pond road, outlet to lake	41	16.7	.....	.....	"	1
Main street, at 'Squog river.....	90	34	2	6.5	Stone.	2
Mammoth road, at Great Cohas.....	38	18	.....	.....	"	1
Mammoth road, near town line.....	14	20	.....	.....	"	1
Mill road, at Harvey's mill.....	59	20.5	.....	.....	"	3
Parker street, at railroad.....	53	24	2	6	Iron.	1
River road, at Little Cohas	16	20	.....	.....	Wood.	1
River road, below James Cheney's...	6	16	.....	.....	"	1
River road, at Goffe's Falls.....	30	30	.....	.....	"	1
Second street, at 'Squog river	62	32.5	2	8.75	Steel.	1
Second street, at 'Squog river	127	32.5	2	8.75	"	1
South road	12	22	.....	.....	Wood.	1
Webster road, at water-works dam...	100	17.5	.....	.....	"	5
Weston road, east of D. Connor's....	6	16	.....	.....	"	1

Stone bridges, 2; steel, 2; iron, 4; wood, 19; total, 27.

NEW HIGHWAYS LAID OUT IN 1894.

STREETS.	LOCATION.	When laid out.	Width in feet.	Length in feet.
Beech.....	Salmon southerly.....	June 27.	50	287
Belmont.....	Bridge to Pearl.....	June 27.	50	717
Candia road *..	At Mammoth road.....	Sept. 21.	..	134
Carpenter ..	Elm to Union.....	Dec. 19.	50	1,350
Glenwood ave..	Bedel to Griffin.....	July 25.	50	1,450
Hale.....	Across Wolf & Wagner land.....	July 25.	50	800
Harrison.....	Belmont to Hall.....	May 21.	50	365
Harvell.....	Main to Second.....	July 25.	50	1,060
Hayes avenue..	Massabesic to Chase avenue.....	Oct. 19.	30	471
Hevey	Conant northerly.....	July 25.	50	300
Lake avenue *..	Hall to Belmont.....	May 21.	..	257
Massabesic.....	Lake avenue to Spruce.....	Dec. 19.	50	384
Mead.....	Hall to Belmont.....	June 27.	50	312
Platts avenue..	Candia road to C. & P. R. R.....	Aug. 24.	50	1,052
Ray.....	Ray brook to Clarke.....	May 21.	50	666
Sagamore.....	Walnut to Oak	Oct. 13.	50	1,112
Salmon.....	Walnut to Beech.....	June 27.	50	270
Schiller.....	Wentworth to Merrimack river...	July 25.	30	218
Schiller.....	Hale to Wentworth.	July 25.	50	855
Titus avenue...	Union to Beech	May 21.	50	540
Wallace.....	Winter southwesterly.....	Nov. 23.	30	165
Wayland ave...	Mammoth road to Massabesic.....	Aug. 24.	50	134
Woodland ave..	S. of Oakland ave. to Candia road	Nov. 23.	40	426
				13,325

* Widening.
 Equaling 2.334 miles.

The following streets have been laid out by the city, the date of the same, with the length, being given in the following table. Some of them are passable to drive upon, but they are not built to grade, and will necessitate a large amount of money to build them properly. Those marked thus * in most cases have not been even opened, and are impassable with few exceptions, although some are passable for a short distance.

STREETS LAID OUT TO DATE BUT NOT BUILT.

STREETS.	Length in feet.	When laid out.
Adams, Appleton to Clarke.....	925	{ June 27, 1889. { July 26, 1892.
Ainsworth avenue, Hayward to Young.....	499	August 31, 1893.
Alfred, Hanover to Amherst.....	212	July 19, 1893.
Allen, Main to Boynton.....	700	July 24, 1891.
Alsace, south of Kelley northerly *.....	1,160	May 26, 1893.
Amory, to Kimball.....	2,800	November 17, 1891.
Amory extension to Bartlett.....	735	July 26, 1892.
Ash, Gore northerly *.....	590	June 9, 1893.
Auburn, Maple to Lincoln *.....	600	July 28, 1891.
Auburn, Wilson to Belmont.....	809	August 15, 1892.
Auburn, Cypress to Platts avenue *.....	967	June 9, 1893.
B, Prince to C.....	258	January 15, 1892.
Bartlett, Amory extension southerly.....	1,800	July 26, 1892.
Beech, north of Gore.....	220	June 9, 1893.
Beech, Salmon southerly *.....	287	June 27, 1894.
Beech, Webster to Clarke *.....	1,176	November 29, 1893.
Bell, Wilson easterly.....	636	August 15, 1892.
Belmont, Young to Clay.....	1,395	September 1, 1891.
Belmont, Bridge to Pearl.....	717	June 27, 1894.
Benton, Jones to James Hall road.....	240	August 31, 1893.
Blaine, Second to Hiram.....	395	May 20, 1892.
Boutwell, Amory northerly *.....	1,693	May 26, 1893.
Byron, Brown avenue to Josselyn.....	998	October 3, 1893.
Campbell, Union to Ash *.....	860	September 26, 1892.
Canal, 82 feet north of Pleasant to Granite.....	1,023	January 15, 1892.
Canton, Spruce to Auburn.....	550	August 2, 1892.
Carpenter, Elm to Union *.....	1,350	December 19, 1894.
Cedar, Wilson easterly.....	665	August 15, 1892.
Central, James Hall road westerly *.....	304	July 6, 1892.
Central south back, Wilson to Hall.....	471	June 7, 1891.
Clay, Jewett to Cypress.....	387	August 31, 1893.
Cleveland, Blaine to Merrimack river.....	1,487	May 20, 1892.
Colby, West Hancock to Log.....	220	November 16, 1893.
Columbus avenue, Cartier to Amory *.....	3,110	May 20, 1892.
Conant, to Montgomery.....	470	June 26, 1893.
Cypress, Lake avenue to Massabesic.....	1,300	December 28, 1892.
Dartmouth, West Hancock to Frederick.....	636	August 28, 1891.
Dickey, Main to West Hancock.....	857	August 28, 1891.
Dubuque, north of Conant northerly.....	50	May 20, 1892.
Erie, South Main westerly.....	470	June 20, 1893.
Essex, Amory southerly.....	575	November 20, 1893.
Forest, Milford to Old Mast road.....	1,460	December 16, 1890.
Glenwood avenue, Mammoth road to J.Cronin's*.....	2,085	December 28, 1892.
Grant, Hanover to Mammoth road *.....	1,008	October 20, 1893.
Green, Douglas northerly.....	96	July 28, 1891.
Green, Pine to Beech.....	990	August 31, 1893.
Green, Wilson to Belmont *.....	809	August 15, 1892.
Grove, Pine to Beech.....	990	July 19, 1893.

STREETS LAID OUT TO DATE BUT NOT BUILT.— *Continued.*

STREETS.	Length in feet.	When laid out.
Grove, Wilson to Belmont*.....	809	September 9, 1892.
Grove, Taylor westerly.....	757	December 28, 1892.
Hale, across Wolf and Wagner land.....	800	July 25, 1894.
Hall, Hayward to Young.....	125	July 6, 1892.
Hall, Lake avenue to Bell.....	1,890	June 23, 1893.
Hall, Pearl to north side of Prospect*.....	716	June 12, 1891.
Harrison, Russell to Hall.....	1,218	October 25, 1892.
Harrison, Hall to Belmont.....	365	May 21, 1894.
Harvard, Union to Maple.....	1,190	November 18, 1892.
Harvell, Main to Second.....	1,060	July 25, 1894.
Hayes avenue, Massabesic to Chase avenue.....	471	October 19, 1894.
Hayward, Beech to Mammoth road.....	6,000	September 21, 1893.
Hevey, Conant northerly.....	300	July 25, 1894.
Hevey, Kelley to Columbus avenue.....	1,163	July 6, 1892.
Highland Park avenue, Candia road to Glen- wood avenue.....	1,007	December 28, 1892.
Hosley, Green to Summer.....	490	November 16, 1893.
Huntress, Albert to north of Prince.....	648	September 18, 1891.
Jewett, Cilley road to Weston road*.....	3,650	November 27, 1891.
Joliette, south of Kelley northerly.....	1,150	May 26, 1893.
Jones, Nelson to R. I. Stevens' land.....	562	August 31, 1893.
Josselyn, Byron to Varney.....	161	October 3, 1893.
Kelley, to M. & N. W. R. R.....	652	June 23, 1891.
Kennedy, Brown avenue to Josselyn.....	922	September 21, 1891.
Knowlton, Hayward southerly.....	487	November 27, 1891.
Lafayette, Amory northerly*.....	1,690	May 26, 1893.
Laval, Amory northerly*.....	1,698	May 26, 1893.
Liberty, North southerly.....	150	April 26, 1892.
Lincoln, Cedar to Shasta*.....	4,321	May 20, 1892.
Longwood ave., Mammoth rd. to Woodbine ave. Maple, Gore northerly*.....	1,100 600	December 28, 1892. June 9, 1893.
Massabesic, Lake avenue to Spruce.....	384	December 19, 1894.
McDuffie, Boynton to Huntress.....	455	September 18, 1891.
McKinnon, Central to Pleasant*.....	192	June 7, 1892.
McNeil, Second to West Hancock.....	299	August 28, 1891.
Mead, Hall to Belmont.....	312	June 27, 1894.
Merrimack, east of Beacon to Hanover.....	1,000	July 28, 1891.
Milford, Amherst road westerly.....	517	December 16, 1890.
Mitchell, Beech to Brown avenue*.....	3,000	{ October 28, 1890. November 29, 1892.
Montgomery, Conant northerly.....	400	May 26, 1893.
Morgan, Amory to Kelley.....	650	May 26, 1893.
Mystic avenue, Candia road northerly.....	1,200	December 28, 1893.
Nelson, James Hall road to Mammoth road.....	509	August 21, 1893.
Oak, Gore northerly*.....	600	June 9, 1893.
Oakland avenue, A. W. Palmer's to J. Cronin's..	1,500	December 28, 1892.
Orchard avenue, Candia road to C. & P. R. R.....	1,337	December 28, 1892.
Page, Hanover to Bridge.....	2,500	June 19, 1889.
Passageway, Elm to Everett.....	200	August 15, 1893.
Platts avenue, Candia road to C. & P. R. R.....	1,052	August 24, 1894.
Prince, Boynton to Huntress.....	520	September 18, 1891.
Prospect, Derry old line to Hall.....	325	May 29, 1889.
Prout avenue, Hayward southerly.....	500	June 6, 1893.
Putnam, to Dubuque.....	300	June 5, 1888.
Quincy, Douglas northerly.....	96	July 28, 1891.
Ray, Ray brook to Clarke*.....	666	May 21, 1894.
Revere avenue, Candia road to C. & P. R. R.....	1,200	December 28, 1892.
Rimmon, north of Conant to Gates.....	158	October 27, 1891.
Rimmon, to south of Wayne.....	735	September 26, 1892.
Sagamore, Union to Walnut.....	270	August 28, 1891.
Sagamore, Walnut to Oak*.....	1,112	October 19, 1894.
Salmon, Pine to Walnut.....	764	June 12, 1891.
Salmon, Walnut to Beech*.....	270	June 27, 1894.

STREETS LAID OUT TO DATE BUT NOT BUILT.— *Concluded.*

STREETS.	Length in feet.	When laid out.
Schiller, Hale to Wentworth.....	855	July 25, 1894.
Schiller, Wentworth to Merrimack river.....	218	July 25, 1894.
Second, Blaine to Main *.....	5,528	September 18, 1891.
Silver, Union to Maple.....	690	June 7, 1892.
Somerville, Union to Hall.....	2,925	June 7, 1892.
Stevens, Baker southerly *.....	300	November 29, 1892.
Summer, Wilson to Massabesic.....	1,480	September 22, 1891.
Titus avenue, Union to Beech.....	540	May 21, 1894.
Union, Auburn to Nutt road.....	4,175	October 25, 1892.
Varney, Josselyn to west of C. & M. R. R. *.....	290	October 3, 1893.
Vinton, Taylor to Jewett *.....	1,256	August 31, 1893.
Wallace, Winter southwesterly *.....	165	November 23, 1894.
Wayland avenue, Massabesic to Mammoth road.....	134	August 24, 1894.
Wayne, West of Dubuque westerly.....	150	June 23, 1893.
Wentworth, West Hancock southerly *.....	1,546	September 21, 1893.
West Hancock, Merrimack river westerly *.....	700	November 28, 1890.
Wilkins, Rockland ave. to Bedford line.....	595	July 6, 1892.
Willow, Hayward to Nutt road *.....	292	June 23, 1893.
Wilson, North line of C. & P. R. R. to Clay.....	1,800	July 26, 1892.
Wilton, Main to Cartier.....	575	June 26, 1893.
Woodbine avenue, Candia road to C. & P. R. R..	1,290	December 28, 1892.
Woodland ave., C. & P. R. R. to Jas. Dearborn's.	770	December 28, 1892.
Woodland ave., Jas. Dearborn's to Candia road.	426	November 23, 1894.
	134,224	

Equaling 25.42 miles.

**Tabulated Statement of Work Done and Present
Standing Relative to Streets and Sewers, Janu-
ary 1, 1895.**

New streets laid out in 1893	36,666.00 ft., equal to	6.940 miles
“ “ “ 1894	13,325.00 “	“ 2.330 “
		<hr/>
Total	.	9.270 miles
New streets built in 1893	. 15,840.00 ft., equal to	3.000 miles
“ “ “ 1894	. 18,513.00 “	“ 3.506 “
		<hr/>
Total	.	6.506 miles
Sewers built in 1893	. 21,716.00 ft., equal to	4.110 miles
“ “ 1894	. 19,612.00 “	“ 3.714 “
		<hr/>
Total	.	7.824 miles
Sewers voted in 1893	. 34,007.00 ft., equal to	6.440 miles
“ “ 1894	. 18,366.00 “	“ 3.480 “
		<hr/>
Total	.	9.920 miles
Streets laid out but not built to January 1, 1895	134,224.00 ft., equal to	25.420 miles
Sewers ordered in but not built to January 1, 1895	32,858.00 “	“ 6.223 “
Total amount of sewers January 1, 1894, equal to		49.350 miles
Actual increase in 1894 equal to	.	2.910 “
		<hr/>
Total amount of sewers January 1, 1895	.	52.260 miles
Length of streets open for travel	564,154.28 ft., equal to	106.847 miles
Length of streets planned for on ground . . .	82,805.00 “	“ 15.682 “
Length of roads opened for travel	323,400.00 “	“ 61.250 “
Length of avenues opened for travel	44,142.00 “	“ 8.360 “
Length of avenues planned for on ground . . .	16,234.00 “	“ 3.074 “
		<hr/>
		1,030,735.28 ft., equal to 195.213 mile

Length of walks on streets	642,978.00 ft., equal to	121.776 miles
Length of walks on roads	4,740.00 " " "	0.897 "
Length of walks on avenues	33,158.00 " " "	6.280 "

680,876.00 ft., equal to 128.953 miles

Road-ways.	{ Cobblestone paving	2,720.00 ft., equal to	0.515 miles
	{ Block " "	9,890.00 " " "	1.873 "
	{ Coal tar concrete	8,856.00 " " "	1.676 "
	{ McAdam . . .	24,837.00 " " "	4.703 "
	{ Telford . . .	26,497.00 " " "	5.018 "

Total length of improved

streets . . . 72,800.00 ft., equal to 13.784 miles

Streets, roads, and avenues open for travel

January 1, 1895 . . . 931,696.28 ft., equal to 176.457 miles

Streets and avenues planned for on ground and not

opened January 1, 1895 99,039.00 " " 18.756 "

Area of city, 21,700 acres, or 33.906 square miles.

Area of Derryfield park	. . . . .	68.00 acres
Stark park	. . . . .	30.00 "
Concord square	. . . . .	4.48 "
Hanover square	. . . . .	3.00 "
Merrimack square	. . . . .	5.89 "
Park square	. . . . .	3.49 "
Tremont square	. . . . .	2.25 "
Total areas of parks	. . . . .	98.00 "
squares	. . . . .	19.11 "

SUMMARY OF SEWERAGE SYSTEM SINCE 1880.

YEAR.	Miles construct- ed during year.	Miles construct- ed to date.	House connec- tions recorded during year.	House connec- tions recorded to date.	Cost of sewers.
1880	1.62	18.66	.....	.....	\$19,919.40
1881	2.18	20.84	.....	.....	23,895.12
1882	3.37	24.21	.....	.....	24,148.13
1883	2.54	26.75	.....	.....	21,452.05
1884	1.73	28.48	.....	.....	21,548.60
1885	1.56	30.04	.....	.....	28,122.84
1886	2.15	32.19	.....	.....	44,479.15
1887	1.44	33.63	.....	.....	19,893.92
1888	1.73	35.36	.....	.....	31,154.19
1889	2.66	38.02	.....	2,003	27,513.73
1890	1.81	39.83	64	2,067	39,297.97
1891	3.08	42.91	153	2,220	55,409.73
1892	3.13	46.04	214	2,434	39,724.65
1893	3.31	49.35	191	2,625	51,392.15
1894	2.91	52.26	258	2,883	46,116.01

Total cost of sewers for 15 years, \$494,067.64.

In the year 1888 a plan was made by the present city engineer for a system of sewerage embracing the entire city, this being the first comprehensive plan ever compiled for that purpose. Since its adoption the majority of the sewers constructed have followed this plan; those that have not are only temporary, and will have to be relaid when the growth of the city demands it. Since 1888 there have been 16.90 miles built, at a cost of \$259,454.24; at an average cost of \$15,322.14 per mile.

Orders.

The following orders have been written by this department for the various committees.

AN ORDER to build Certain Sewers.

Ordered, If the Board of Mayor and Aldermen concur, that the street commissioners be and are hereby authorized to build certain sewers, as follows :

From Chestnut to Union street through the Livermore land as follows: Beginning at the public sewer in Chestnut street about 16 feet west of the east line of Chestnut street, and about $2\frac{1}{2}$ feet south of the north line of lot No. 13 on the Livermore plan of land ; thence easterly to Union street over the right-of way deeded to the city by T. L. Livermore, by deed dated January 31, 1894, a distance of about 810 feet. In Adams street from the above sewer northerly to Clarke street, a distance of about 240 feet. In Rimmon east back street, from Amory street sewer southerly to a point in Rimmon east back 200 feet south of Wayne street, a distance of 750 feet. In Pine street from Auburn street southerly, 540 feet to Green street ; thence easterly in Green street 126 feet to Pine east back ; thence southerly in Pine east back, 400 feet to Grove south back. In Green south back, from Pine east back to Union street, about 300 feet. In Grove south back, from Pine east back to Union street, about 300 feet. In Belmont street from present sewer southerly to the culvert at Belmont and Valley streets, a distance of about 230 feet. In Wilson street from Spruce southerly to Valley street, a distance of about 1,800 feet. In Pine east back street from Amherst street northerly, a distance of 150 feet. In Mast street from present sewer westerly, 610 feet to the Amherst road, thence southerly in the Amherst road about 1,230 feet to Milford street. And the expense thereof be charged to the appropriation for new sewers.

Recommended by the committee on sewers and drains March 30, 1894.

AN ORDER to establish Certain Grades.

Ordered, If the Board of Mayor and Aldermen concur, that the grade, as shown on plan No. 4,135, of Cilley road from Beech

street to Wilson street, a distance of about 1,900 feet ; on Beaufort street, as shown on plan No. 129, from Kelley street southerly about 350 feet ; on Amherst street to fix the grade as shown on plan No 9, from Pine street to Union street ; and the same, as shown on said plans, be and hereby is made the established grades of said streets.

Recommended by the committee on streets April 10, 1894.

AN ORDER to build Certain Sewers.

Ordered, That the board of street and park commissioners be and are authorized to build certain sewers, as follows :

In Union street from the line of the proposed sewer across the Livermore land near Ray brook, and thence northerly to Clarke street.

In Union east back street from Webster street southerly about 100 feet.

In Hill street and thence northerly and easterly to the Merrimack river, a distance of about 1,200 feet.

In Malvern street, to extend the present sewer southerly about 100 feet between Lowell and Concord streets.

In Elm west back street from north of Dean street northerly about 70 feet.

And the expense thereof be charged to the appropriation for new sewers.

Submitted by the committee on sewers and drains April 27, 1894.

AN ORDER to build Certain Streets.

Ordered, That the board of street and park commissioners be and are hereby authorized to build certain streets as follows :

Harrison street, from Russell street easterly to Belmont street.

Kennedy street, from Brown avenue westerly to Josselyn street.

And the expense be charged to the appropriation for new highways.

Recommended by the committee on streets June 4, 1894.

AN ORDER to establish Certain Grades.

Ordered, That the grade as shown on plan 7, of B street from A street southerly, as established September 6, 1881, be changed by raising the grade twelve inches at the north line of the Ordway lot, and three inches at the south line of said Ordway lot; and the grade, as shown on plan 62, of Valley street from Belmont street east be changed as shown by blue lines on said plan. The grade of this plan was established December 5, 1892. Signed by George H. Allen as city engineer. And the grade of Cartier street from Kelley southerly, as shown on plan No. 784.

And that the new grades, as shown on said plans, be and are hereby made the established grades of said streets.

Recommended by the committee on streets June 4, 1894.

AN ORDER to build Wentworth Street.

Ordered, That the board of street and park commissioners be and are hereby authorized to build Wentworth street from West Hancock street southerly to the south end of said street, as laid out, a distance of about 1,500 feet, and the expense thereof be charged to the appropriation for new streets.

AN ORDER to establish Certain Grades.

Ordered, That the grade, as shown on plan 4,083, of Beech street from Cedar to Valley street, and on plan 963, of Merri-mack street from Beacon to Hanover street, be and are hereby made the established grade of said streets, said plans being on file in the city engineer's department.

Recommended by the committee on streets July 2, 1894.

AN ORDER to build Certain Streets.

Ordered, That the board of street and park commissioners be and are hereby authorized to build Wentworth street from West Hancock street southerly to south end of said street, as laid out, a distance of about 1,500 feet ; Salmon street, as laid out, from Walnut to Beech, a distance of about 220 feet ; Bartlett street from Putnam street southerly a distance of about 400 feet ; and the expense thereof be charged to the appropriation for new streets.

Recommended by the committee on streets July 2, 1894.

AN ORDER to build Certain Streets.

Ordered, That the board of street and park commissioners be and are hereby authorized to build Mystic avenue from Oakland avenue to Glenwood avenue, a distance of about 320 feet ; also to build Bartlett street from Putnam to Sullivan street, a distance of about 415½ feet ; and the expense be charged to the appropriation for new streets.

Recommended by the committee on streets August 3, 1894.

AN ORDER to build Certain Sewers.

Ordered, That the board of street and park commissioners be and are hereby authorized to build certain sewers, as follows :

In Bridge street from Hall to Belmont, a distance of 350 feet, to the east side of Belmont street.

In Pearl street from Russell street easterly about 125 feet.

In Wilson street from Valley to Somerville street, a distance of about 1,800 feet.

And the expense be charged to the appropriation for sewers and drains.

Recommended by the committee on sewers and drains, August 3, 1894.

AN ORDER to change the Grade of Cartier Street.

Ordered, That the grade, as shown on plan 887 and established November 28, 1890, by the board of aldermen, be changed to conform to the new lines on said plan, and the new lines be and are hereby made the established grade of said street.

Recommended by the committee on streets August 3, 1894.

AN ORDER to build Certain Sewers.

Ordered, That the board of street and park commissioners be and are hereby authorized to build certain sewers, as follows :

In Hevey east back street from Kelley street southerly to Wayne street, a distance of about 1,200 feet.

In Manchester street from present sewer near Milton street, thence easterly 300 feet to Beacon street.

In Clinton street, from Main to West, a distance of 520 feet.

In Dover street from Clinton northerly, a distance of 160 feet.

In West street from Clinton northerly, a distance of 250 feet.

And the expense be charged to the appropriation for sewers.

Recommended by the committee on sewers August 28, 1894.

AN ORDER to change Grade of Valley Street.

Ordered, That the grade as shown on plan 64 by red lines, and dated December 5, 1882, signed by George H. Allen, be changed to conform to the blue lines as shown on said plans and dated September 4, 1894.

Recommended by Mayor Worthen September 4, 1894.

AN ORDER to establish the Grade of Harrison Street.

Ordered, That the grade, as shown on plans No. 1,071 and 1,072 of Harrison street from Maple to Belmont street, and

marked on said plans by red lines and figures, and dated September 10, 1894, be and is hereby made the established grade of said street, said plans being on file in the city engineer's office.

Recommended by the city engineer September 10, 1894.

AN ORDER to establish the Grade of Page Street.

Ordered, That the grade as shown on plan No. 988 of Page street from Hanover street road to Candia road, and marked on said plans by red lines and figures, and dated September 10, 1894, be and is hereby made the established grade of said street, said plan being on file in the city engineer's department.

Recommended by the city engineer September 10, 1894.

AN ORDER to establish the Grade of Kelley, Rimmon, and Dubuque Streets.

Ordered, That the grade, as shown on plan No. 4,089 of Kelley street from Cartier to Lorraine street, also on plan No. 4,015 of Dubuque street, and plan 4,008 of Rimmon street, be and is hereby made the established grades of said streets.

Recommended by the city engineer September 26, 1894.

AN ORDER to build a Sewer in Prospect Street.

Ordered, That the board of street and park commissioners be and are hereby authorized to build a sewer in Prospect street from the present sewer in Russell street, thence westerly about 125 feet in Prospect street, and the expense thereof be charged to the appropriation for new sewers.

Recommended by the committee on sewers and drains October 2, 1894.

AN ORDER to establish the Grade of Union Street.

Ordered, That the grade, as shown on a plan of Union street, from Clarke street northerly to a point 300 feet northerly of the north line of Trenton street, and the grade as shown on said plan is hereby made the established grade of said Union street.

Recommended by the committee on streets October 2, 1894.

AN ORDER to build Certain Streets.

Ordered, That the board of street and park commissioners be and are hereby authorized to build Somerville street from Pine to Union street, also Sagamore street from Walnut to Oak street, as laid out by the Board of Mayor and Aldermen, and the expense thereof be charged to the appropriation for new streets.

Recommended by the committee on streets November 1, 1894.

AN ORDER to establish the Grade of Sagamore Street.

Ordered, That the grade as shown on the plan of Sagamore street, known as No. 4, 130, in the city engineer's office, be and is hereby made the established grade of said street from Walnut street to the west line of Oak street, as laid out by the Board of Mayor and Aldermen.

Recommended by the committee on streets November 1, 1894.

AN ORDER to build Certain Sewers.

Ordered, That the board of street and park commissioners be and are hereby authorized to build certain sewers, as follows :

In Grove street from present sewer easterly 150 feet.

In Spruce street to Canton about 800 feet.

In Canton street from Spruce southerly about 500 feet.

In Auburn street from Canton easterly about 600 feet.

In Pearl street from Hall westerly about 130 feet.

In Hall street from Mead southerly about 200 feet.

In Liberty east back street from Salmon southerly about 150 feet.

In Hill street from Schiller southerly 450 feet.

In Harvell street from Hale westerly 700 feet.

The expense thereof to be charged to the appropriation for new sewers.

Recommended by the committee on sewers and drains November 2, 1894.

SUBURBAN HIGHWAYS.

The matter of defining and establishing the boundary lines of the suburban highways still remains unsettled. Each succeeding year is making it more difficult to re-trace and re-locate old points, and it is but a question of time when they will be entirely destroyed and the correct lines become a doubtful quantity. On many of the roads the abutters are constantly encroaching upon city land, thoughtlessly, perhaps, but still with each successive improvement taking in more and more of the highway. It has been the aim of this department to secure what data could be had in relation to these roads, and mark the lines as fast as possible, but regular work has prevented any systematic attempt to straighten matters out. This is a very important item, and should receive immediate attention by providing means for a complete survey of all the outlying roads while the points still remain.

It hardly seems good judgment, in view of the rapid growth of the city and the constantly increasing traffic, to narrow a four-rod road to a fifty-foot street whenever the bounds are established. This has been done in the past, but should not be the future policy.

STREETS.

The same may be said this year as has been said in previous reports in regard to laying out streets twenty-five, thirty, or

thirty-five feet wide. This evil still exists, and will continue to exist so long as there are land owners who care for nothing but to sell every inch of land possible, regardless of whether the adjoining streets are of sufficient width to accommodate traffic or not. We have streets in the city, dignified by the name of avenues, where it is impossible to turn a truck team or dray without running upon the sidewalks. This method of dividing land is advantageous to the owners, but scarcely in keeping with modern ideas.

There are those, however, who keep abreast of the times, and, recognizing the necessity of broad thoroughfares, have divided their property accordingly. It would be better for the appearance of the city if there were more of them.

There is an urgent need of some action being taken looking to regularity in setting apart land for streets, either by ordinance or by the appointment of a commission for that purpose. As it is now, each land owner can put a street where he pleases, regardless of how it compares with those adjoining as to direction or distance therefrom. By preparing a plan showing the location of proposed streets, and compelling land owners to adhere to it, the city would be rid of the interminable jumble of streets, lanes, and alleys running in all directions, confusing to a stranger and detracting greatly from the beauty of the city and the efficiency of the highways as means of communication.

It is time this matter received serious attention, as each year sees a material growth of the city in the outlying districts, and a consequent addition of numerous narrow, crooked, and almost useless highways called by the high-sounding name of avenues, which are but monuments to some one's cupidity and avarice.

Building new streets that have been laid out is quite an important matter, and one requiring the exercise of good judgment. The idea is not how many yards can be built, but how many can be built to last. It may not show up so well to an unthinking person, but it is more than folly to half do the work and then have to go over it the next year and every succeeding year. Far better to build one yard that will stand than ten that it is impossible to haul a heavy load over.

The practice in many cities is for the property owner who desires a street through his land to build it to an established grade before the city will accept it. They also require the land to be given to, instead of being purchased by, the city, sometimes at exorbitant rates. They argue that as the owner derives the benefit through the increased valuation of his land it is for his interest to do so.

Manchester is considerably behind the times in these two important features of economical city administration.

SEWERS.

The sewers constructed this year have been under the direction of the street and park commission. The methods followed have in the main been the same as in previous years, those whose needs were most pressing being accommodated first.

As the plumbers and citizens in general become more familiar with the revised ordinances relating to sewer entering, less trouble is experienced. An improvement is also noted in the number of returns made by plumbers. Last year out of 191 permits issued, 145 returns were made. This year 257 permits were granted and returns made of 185 connections.

It would be good policy for the city to employ a competent sewer inspector, whose duty should be to examine all connections as they are made with the city sewers, and keep a record of the same. He should also require the owners to show their permit and license before allowing any work to be done. Many connections are now made without permission or without paying the entrance fee, and the city is a loser thereby. It is the intention of this department the coming season to see that the ordinances are complied with in this respect.

The average cost per foot in district No. 2 has been \$2.37, and that in district No. 10 has been \$2.26.

In the 19,612 feet of sewers there were built 69 manholes and 21 lampholes; 116 cesspool connections were put in, besides the Y branches, for 574 house connections.

The number of cesspools built and repaired, their cost, and

the cost of repairs on sewers, together with other details regarding sewer work, will be found in the report of the street and park commission.

The following sewers have been ordered in by vote of the city councils, but have not been constructed :

STREET.	LOCATION.	Length in feet.	Date ordered.
Adams.....	Clarke southerly.....	540	April 3, 1894.
Amherst.....	Union to Ashland.....	2,600	May 2, 1893.
Amherst road.....	Mast southerly.....	1,230	April 3, 1894.
Auburn.....	Canton easterly.....	600	Nov. 9, 1894.
Canton.....	Spruce to Auburn.....	352	Nov. 9, 1894.
Concord.....	Hall easterly.....	200	Sept. 6, 1887.
Dearborn.....	Extension to Taylor.....	250	July 10, 1893.
Dickey.....	West Hancock to South Main..	850	July 10, 1893.
Dover.....	Clinton northerly.....	160	Sept. 4, 1894.
Front.....	Eddy to north of hotel.....	2,800	Sept. 5, 1893.
Grove.....	Present sewer easterly.....	101	Nov. 9, 1894.
Harvell.....	Hale to South Main.....	700	Nov. 9, 1894.
Hale.....	Schiller southerly.....	450	Nov. 9, 1894.
Hevey east back.....	Kelley to Columbus avenue...	1,500	July 10, 1893.
Jewett.....	Extension to Young.....	1,200	July 10, 1893.
Kelley.....	Extension to Joliette.....	1,500	July 10, 1893.
Laurel.....	Hall to Beacon.....	800	Nov. 7, 1893.
Livermore land.....	Chestnut to Union.....	810	April 3, 1894.
Mast.....	Extension westerly.....	610	April 3, 1894.
Merrimack.....	Belmont to Milton.....	200	Oct. 6, 1891.
Manchester.....	Extension to Beacon.....	300	Sept. 4, 1894.
Myrtle.....	Hall westerly.....	200	May 2, 1893.
Pennacook.....	Canal to Union east back.....	3,000	Nov. 7, 1893.
Porter.....	Amherst northerly.....	250	May 2, 1893.
Pearl.....	Hall westerly.....	130	Nov. 9, 1894.
River road.....	Monroe to Clarke.....	684	July 10, 1893.
Second.....	Blaine to Hiram.....	400	July 5, 1892.
Schiller.....	Hill to Hale.....	565	Nov. 9, 1894.
Union.....	Ray brook to Clarke.....	600	May 1, 1894.
Valley.....	Elm to Belmont.....	4,900	Nov. 7, 1893.
West.....	Clinton northerly.....	226	Sept. 4, 1894.
Wilson.....	Spruce to Valley.....	1,800	April 3, 1894.
Wilson.....	Valley to Somerville.....	1,800	Aug. 7, 1894.
Wilson Hill.....	Central to Merrimack.....	550	Sept. 21, 1893.
Total.....	.....	32,858	

Equaling 6.223 miles.

SEWER PERMITS GRANTED, 1894.

No. of License.	NAME OF LICENSEE.	Location of sewer.	House No.	Street.	Feet front.	Price.	Amount.	Date.
429	D. C. Waterman.....	Welch avenue....	25	Welch avenue.....	45	\$0.30	\$13.50	Jan. 2
430	Luther C. Baldwin.....	Riddle.....	157	Milford.....	100	.30	15.00	" 3
431	John G. Eaton.....	Church.....		Church.....	45	.30	13.50	" 5
432	Eaton & Emerson.....	Chestnut.....	849, 851	Chestnut.....	75	.30	15.00	" 6
433	E. L. Lodge.....	Asb E. B.....		Maple.....	57	.30	15.00	" 19
434	Gustavus Volkman.....	Cartier.....	46	Cartier.....	50	.30	15.00	Feb. 21
435	Dr. Rowe.....	".....	47	".....	50	.30	15.00	" 21
436	Otto Erlmann.....	".....	62	".....	50	.30	15.00	" 21
437	Frederick Poehlmann.....	Dubuque.....	61	Dubuque.....	50	.30	15.00	" 21
438	Charles D. Welch.....	Elm.....	15	Elm.....	50	.30	15.00	" 26
439	Charles D. Welch.....	".....	33, 35, 37	".....	118	.30	33.40	" 26
440	Charles D. Welch.....	Welch avenue....	20	Welch avenue....	45	.30	13.50	" 26
441	Charles D. Welch.....	".....	126, 128	Calef road.....	52	.30	15.00	" 26
442	Charles D. Welch.....	Elm avenue....	19	Elm avenue....	45	.30	13.50	" 26
443	Mrs. Selenia Hong.....	Arlington.....	106, 108, 112	Elm avenue.....	194	.30	34.20	" 28
444	George Blanchet.....	Gore.....	39	Gore.....	60	.30	18.00	" 28
445	Honora Keane.....	Cartier.....	753, 755	Beech.....	54	.30	15.00	Mar. 1
446	M. D. Knox.....	Chestnut E. B....	85	Cartier.....	60	.30	15.00	" 6
447	M. Prout.....	Hayward.....	722	Pine.....	50	.30	15.00	" 6
448	O. D. Knox.....	Chestnut E. B....	959	Hayward.....	70	.30	15.00	" 6
449	John F. Chase.....	Harrison.....	757	Chestnut.....	67	.30	15.00	" 7
450	John G. Eaton.....	Arlington.....	225	Harrison.....	67	.30	15.00	" 7
451	George E. Watson.....	Grove.....	13	Linden.....	175	.30	52.50	" 12
452	P. J. Connor.....	Arlington.....	91, 95	Arlington.....	100	.30	15.00	" 13
453	Mrs. Jane Gill.....	Cedar S. B.....	732	Grove.....	178	.30	53.40	" 14
454	M. D. Johnson.....	Sagamore S. B....	92, 94	Arlington.....	25	.30	7.50	" 16
455	James Ghroy.....	Hanover S. B....	46	Anburn.....	50	.30	15.00	" 16
456	George Noyes.....	East Spruce.....	99	Sagamore.....	50	.30	15.00	" 16
457	Michael Lane.....	Concord.....	182, 184	Manchester.....	50	.30	13.00	" 19
458	Isaac Huse.....	Hanover S. B....	337	East Spruce.....	35	.30	10.50	" 21
459	Mrs. A. H. Varney.....	Pearl.....	122	Concord.....	25	.30	7.50	" 22
			235	Manchester.....	107	.30	15.00	" 22

460	James Holden	Salmon	85	Salmon	90	30	15.00	"	24
461	Mrs. E. A. Kimball	Chestnut W. B.	502	Chestnut	59	30	15.00	"	28
462	W. H. Darling	Manchester S. B.		Manchester	24½	30	7.30	"	30
463	A. J. Edgerly	Salmon S. B.	104	Sagamore	50	30	15.00	April	31
464	Ira P. Fellows	A.	82	A.	50	30	15.00	"	6
465	William Aldred	Riddle	88	Riddle	60	30	15.00	"	7
466	True J. Perry	Spruce	47	Falls road	50	30	15.00	"	7
467	Patrick O'Connell	Cedar	427	Cedar	50	30	15.00	"	9
468	Sarah C. Davis	Manchester S. B.	166, 168	Merrimack	50	30	15.00	"	13
469	Mrs. N. M. Congdon	South Main	415	South Main	45	30	13.50	"	13
470	Mrs. Caroline Bauman	Conant	141	Conant	50	30	15.00	"	14
471	C. P. Sturtevant	Milford	122, 124	Milford	77½	30	15.00	"	14
472	C. N. Heald, estate of	Dutton	289	Concord	50	30	15.00	"	14
473	N. J. Whalen	Bridge	304	Bridge	120	30	15.00	"	14
474	Ferdinand Bilodeau	Rimmon E. B.	441	Rimmon	53	30	15.00	"	17
475	George W. Flint	Milford	101	Milford	60	30	15.00	"	18
476	A. L. Walker	Parker	108	Parker	50	30	15.00	"	19
477	{ Mrs. Sarah J. Hardy	Beech E. B.	193, 195	Bridge	100	30	30.00	"	20
478	{ Josie M. Hamlin	Salmon S. B.	866	Union	60	30	15.00	"	21
479	Edgerly & Turner	Bridge	26	Old Bridge St. road	56	30	15.00	"	21
480	John E. Johnson	Elm west back		Elm west back	50	30	.....	"	23
481	C. B. Hall	Hanover	404, 406	Hanover	50	30	15.00	"	23
482	John J. Bennett	Ash	108, 112	Ash	50	30	15.00	"	24
483	F. X. Chenette	Pine E. B.	205, 207, 209	Pine	150	30	45.00	"	28
484	George L. Russell	Rimmon	24	Rimmon	50	30	15.00	"	28
485	George L. Russell	Cartier E. B.	450	Beaumont	53	30	15.00	"	28
486	C. Marion Rowell	Webster	911	Beech	50	30	15.00	May	4
487	Peter H. Byrne	Lake avenue	471	Central	50	30	15.00	"	10
488	Jonathan F. Williams	Salmon	97	Salmon	90	30	15.00	"	14
489	A. W. Dole	Beech E. B.	727	Beech	65	30	15.00	"	14
490	Patrick Harrington	Lake avenue	105, 33	Lake avenue	30	30	31.50	"	15
491	George Verville	Dubuque	291	Dubuque	105	30	15.00	"	15
492	Charles Lemieux	"	258	"	50	30	15.00	"	16
493	John McCormick	Auburn S. B.		Summer	50	30	15.00	"	17
494	William Chagnon	Dubuque	324	Dubuque	50	30	15.00	"	18
495	Nicholas Reid	Kelley	542	Hevey	100	30	30.00	"	19
496	Napoleon Lambert	Dubuque	290	Dubuque	50	30	15.00	"	19
497	Joseph Huard	"	294	"	50	30	15.00	"	21
498	Frank N. Young	Gore	695	Maple	50	30	15.00	"	21
499	Frank I. Lessard	Dubuque	320	Dubuque	50	30	.....	"	21
500	Daniel Annis	Gore	689	Maple	50	30	15.00	"	21
501	Orab and Julia Pepin	Dubuque	306	Dubuque	50	30	15.00	"	22

SEWER PERMITS GRANTED, 1894. — *Continued.*

No. of li- cense.	NAME OF LICENSEE.	Location of Sewer.	House No.	Street.	Feet front.	Price.	Amount.	Date.
502	J. F. Martin	Prospect.....	248	Prospect	50	\$0.30	\$15.00	May 24
503	Mrs. I. L. Flanders	Malvern	9	Malvern	50	.30	15.00	" 28
504	Abiel C. Flanders.....	Central S. B.	312, 314	Lake avenue.....	35	.30	10.50	" 29
505	{ Edward M. James	"	197	Central	50	.30	15.00	" 29
	{ G. H. Larabee.....	"	172, 174	Amherst.....	50	.30	15.00	" 29
506	The Gymnasium.....	Amherst.....	172, 174	Amherst.....	50	.30	15.00	" 29
507	Allan E. Herrick.....	Russell.....	91	Russell	50	.30	15.00	June 2
508	H. B. Sawyer.....	Prospect.....	265	Prospect	50	.30	15.00	" 5
509	Miss Mary Andrews.....	Auburn S. B.	343	Auburn.....	50	.30	15.00	" 5
510	C. R. Crossett	Pine E. B.	2, 4	Bethel court.....	50	.30	15.00	" 5
511	H. W. Herrick	Prospect.....	242	Prospect	50	.30	15.00	" 5
512	S. B. Hope	Lowell.....	244	Lowell.....	40	.30	12.00	" 7
513	James McIntock, heirs of.....	"	240	"	42	.30	12.00	" 7
514	Arthur A. Page.....	Lake avenue.....	534	Lake avenue.....	50	.30	15.00	" 9
515	S. T. Worthen.....	Prospect.....	274, 278	Prospect	35	.30	28.50	" 13
516	Mrs. William P. Richardson.....	Central S. B.	180	Lake avenue.....	25	.30	7.50	" 14
517	Bridget Twohey	Montgomery	17	Montgomery	50	.30	15.00	" 14
518	Mrs. Sarah Hoyt.....	South	248	Lowell.....	80	.30	15.00	" 15
519	F. A. Koerner.....	Schuyler.....	228	Main.....	70	.30	15.00	" 18
520	{ Henry Gazaille	Rimmon	343	Rimmon	60	.30	18.00	" 18
	{ W. R. Call	"		"				" 19
521	Mr. A. O. Haines.....	Lake avenue.....	588	Lake avenue.....	50	.30	15.00	" 19
522	Caroline Letendre.....	Rimmon.....	329	Rimmon	50	.30	15.00	" 19
523	Joseph Prond.....	Prospect.....	298	Prospect	55	.30	15.00	" 20
524	Henry McCullough.....	Rimmon.....	356	Rimmon	60	.30	18.00	" 21
525	Levi W. Page	Hall.....	394, 396, 398, 400	Spruce	110	.30	33.00	" 22
526	Samuel Quimby	Adams.....	10	Adams.....	50	.30	.....	" 23
527	John Gosslen	Rimmon.....	402	Rimmon	50	.30	15.00	" 23
528	M. D. Johnson.....	Sagamore S. B.	99	Sagamore	50	.30	15.00	" 23
529	E. H. Smith	Dubuque	317	Dubuque	50	.30	15.00	" 23
530	John F. Ryan	Auburn S. B.	319	Auburn	50	.30	15.00	" 23
531	George L. Read	Liberty E. B.	908	Union.....	70	.30	15.00	" 25
532	Darwin Mosher.....	Amherst.....	402	Amherst.....	50	.30	15.00	" 26

533	Thomas Burke.....	Prospect.....	320	Prospect.....	50	.30	15.00	"	26
534	George T. Lindsey.....	Salmon.....	531	Union.....	75	.30	15.00	"	27
535	Dr. Thomas Wheat.....	Merrimack S. B.	235, 40, 42	Laurel.....	40	.30	12.00	"	30
536	{ T. B. Hillard..... }	Concord.....	301	Concord.....	50	.30	15.00	"	30
537	{ E. B. Vasey..... }	"		"				"	
538	E. B. & E. J. Veasey.....	Prospect.....	333	Prospect.....	50	.30	15.00	"	30
539	Edward P. Donnelly.....	School.....	323	School.....	118	.30	15.00	July	2
540	Mary S. Danforth.....	Bridge.....	19	Bridge.....	72	.30	15.00	"	5
541	Almer E. Jackson.....	River road.....	262	River road.....	45	.30	13.50	"	6
542	Edmond Pinard.....	"		"	100	.30	15.00	"	6
543	Mrs. Phoebe Terrion.....	Bridge.....		Bridge.....	90	.30	15.00	"	6
544	James Murphy.....	Lake avenue.....	297	Central.....	75	.30	15.00	"	3
545	Mrs. J. E. Milmore.....	Manchester.....	477	Manchester.....	50	.30	15.00	"	9
546	George O. Heseltun.....	Prospect.....	427	Prospect.....	75	.30	15.00	"	10
547	John Q. Sprague.....	Hayward.....	328	Hayward.....	50	.30	15.00	"	11
548	Daniel Allen.....	Carroll.....	939	Carroll.....	82½	.30	15.00	"	11
549	Mrs. Maria Phelon.....	Lowell.....	54	Hall.....	50	.30	15.00	"	11
550	I. R. Dewey.....	Spruce S. B.....	605	Spruce.....	50	.30	15.00	"	11
551	Lord, Boshier & Riddle.....	"	49	"	35½	.30	10.65	"	13
552	James McLaughlin.....	Rimmon.....	462	Rimmon.....	50	.30	15.00	"	14
553	Moses Bessette.....	Lake avenue.....	322	Lake avenue.....	50	.30	15.00	"	14
554	A. Meludne.....	Russell.....	18	Prospect.....	75	.30	15.00	"	16
555	Mrs. Jane A. Clarke.....	Monroe.....	233	Monroe.....	50	.30	15.00	"	17
556	C. B. Littlefield.....	Pine.....	45	Pine.....	55	.30	15.00	"	18
557	John Eaton.....	Spruce S. B.....	669	Spruce.....	30	.30	9.00	"	18
558	Frank P. Johnson.....	Rimmon.....	31	Rimmon.....	40	.30	12.00	"	18
559	M. P. Hall.....	Spruce S. B.....	377	Spruce.....	35	.30	10.50	"	21
560	Joseph T. Murray.....	Montgomery.....	25	Montgomery.....	50	.30	15.00	"	21
561	Henry Trischmann.....	Nashua.....	1962	Elm.....	70	.30	15.00	"	21
562	Howlett & Holbrook.....	Prospect.....		Lowell.....	93	.30	15.00	"	23
563	Kennard heirs.....	Spruce S. B.....	224	Spruce.....	36	.30	7.50	"	26
564	O. E. Branch.....	Anniest S. B.....	227	Beacon.....	25	.30	7.50	"	27
565	James Lightbody.....	Lake avenue.....	55	Prospect.....	71	.30	15.00	Aug.	1
566	Mary W. Buck.....	Prospect.....	80	"	50	.30	15.00	"	2
567	Arthur H. Hale.....	"	282	Myrtle.....	100	.30	30.00	"	2
568	Frank B. Perkins.....	Spruce.....	353, 355, 357	Spruce.....	75	.30	22.50	"	2
569	W. E. Buck.....	Beech E. B.....	St. 340, 342, 344, 346	Beech.....	50	.30	15.00	"	4
570	C. T. Whedon.....	Elm avenue.....	353, 355, 357	"	50	.30	15.00	"	8
571	A. D. Richards.....	"		"	50	.30	15.00	"	8
572	C. D. Welch.....	"	41	"	50	.30	15.00	"	8
573	C. D. Welch.....	"	43	"	50	.30	15.00	"	8
574	C. D. Welch.....	"		"	50	.30	15.00	"	8

SEWER PERMITS GRANTED, 1894.—Continued.

No. of license.	NAME OF LICENSEE.	Location of sewer.	House No.	Street.	Feet front.	Price.	Amount.	Date.
575	Wm. P. Shepard	A.....	38	A.....	50	\$0.30	\$15.00	Aug. 11
576	George Hoffman	Montgomery ..	.....	Montgomery..	50	.30	15.00	" 11
577	Jeremiah Sullivan	Cedar S. B.....	321	Maple	75	.30	15.00	" 14
578	C. J. Holt	Ashland	34	Ashland	45	.30	13.50	" 18
579	{ Mrs. M. A. Lamb..... } { Mrs. John H. Hamilton..... }	Merrimack S. B.	165, 167	Merrimack.....	50	.30	15.00	" 21
580	Mrs. Charles Wells.....	Anherst S. B.....	86	Hanover.....	25	.30	7.50	" 21
581	W. C. Nesmith.....	Riddle.....	98	Riddle.....	60	.30	15.00	" 22
582	Mrs. Laura E. Coffin.....	Wilson Hill.....	520	Merrimack.....	47	.30	14.50	" 23
583	Frank W. Wilson.....	C.....	61	C.....	50	.30	15.00	" 25
584	Thomas Stafford.....	A.....	70	A.....	57	.30	15.00	" 25
585	S. L. Higgins, per Mead, Mason & Co.	Hall.....	380	Pearl	69	.30	15.00	" 25
586	Mrs. James S. Cogswell.....	Hanover S. B.....	392	Manchester.....	60	.30	15.00	" 25
587	M. D. Johnson.....	Walnut	20	Gore.....	50	.30	15.00	" 28
588	Ellen Gallagher.....	Bridge	373	Bridge.....	60	.30	18.00	Sept. 1
589	C. M. Bixby.....	Salmon	313	Walnut	50	.30	15.00	" 6
590	George D. Pitts.....	Walnut	297	"	50	.30	15.00	" 11
591	F. Wm. Windrich.....	Myrtle	390	Myrtle.....	57	.30	15.00	" 20
592	George O. Sorenson.....	"	332	"	57	.30	15.00	" 20
593	Dennis Clifford.....	"	331	"	60	.30	15.00	" 11
594	Miss Loretta Bartlett.....	Riddle	108	Riddle	68	.30	20.40	" 11
595	John A. Bartlett.....	Pearl	288, 290	Pearl	12 ¹²	.30	3.75	" 11
596	Fred M. Smith	Cedar	237	Pine	57	.30	11.00	" 11
597	Elof Lindstrom	Myrtle.....	385	Myrtle.....	50	.30	15.00	" 12
598	M. D. Johnson	Gore	24	Gore.....	50	.30	15.00	" 15
599	Charles W. Eaton.....	C.....	32	C.....	76	.30	15.00	" 17
600	M. J. Sullivan	Laurel S. B	222	Central	65	.30	15.00	" 17
601	Andrew Spence	Carroll.....	80	Carroll	65	.30	15.00	" 17
602	James Spence	"	94	"	65	.30	15.00	" 17
603	Joseph M. Bennett.....	Cypress	293	Cypress	100	.30	15.00	" 17
604	Neil E. Fullerton.....	Bowman	191	Bowman	50	.30	15.00	" 17
605	Martha C. Jenkins.....	"	209	"	40	.30	12.00	" 17
606	George W. Quimby	Harrison S. B.....	587	Chestnut	100	.30	15.00	" 17

607	Mead, Mason & Co.....	Orange.....	358	Orange.....	59	30	15.00	"	18
608	Charles H. Morey.....	Carroll.....	52	C.....	50	30	15.00	"	19
609	George F. Perry.....	Carroll.....	69	Carroll.....	55	30	15.00	"	19
610	Frank N. Lathame.....	Belmont.....	387	Belmont.....	50	30	15.00	"	20
611	Benj. A. Bloomey.....	Manchester S. B.....	240	Merrimack.....	50	30	15.00	"	22
612	George Young.....	Morrison.....	11	Morrison.....	63	30	Free.	"	22
613	George Young.....	".....	19	".....	63	30	Free.	"	24
614	George Heaton.....	Bowman.....	153	Bowman.....	50	30	15.00	"	24
615	George Heaton.....	".....	173	".....	50	30	15.00	"	24
616	Edward Hall.....	".....	162	".....	52	30	15.00	"	24
617	Ann Carr.....	Laurel S. B.....	102	Laurel.....	25	30	7.50	"	21
618	William McArthur.....	Blaine.....	163	Third.....	50	30	15.00	"	21
619	C. H. Gile.....	Liberty E. B.....	896	Union.....	60	30	18.00	"	25
620	Mrs. Martha A. Frachure.....	Bowman.....	172	Bowman.....	90	30	15.00	"	27
621	Mrs. J. A. Dolber.....	Spruce.....	83	Spruce.....	55	30	16.50	"	27
622	H. D. Lord.....	Spruce S. B.....	126, 194, 190	Chestnut.....	72	30	.....	Oct.	1
623	Charles B. Tucker.....	Chestnut E. B.....	37, 43	Spruce.....	50	30	15.00	"	1
624	Daniel J. Allen.....	Hayward.....	748	Pine.....	38	30	.....	"	1
625	L. H. Gould.....	Lowell.....	951	Hayward.....	50	30	15.00	"	1
626	Daniel O. Sullivan.....	Kimmon.....	369	Lowell.....	50	30	15.00	"	1
627	Eugene Bailey.....	Hayward.....	3-6	Kimmon.....	50	30	15.00	"	2
628	Thomas Frahn.....	Lake ave. S. B.....	919	Hayward.....	40	30	12.00	"	2
629	John Kennard.....	Hanover S. B.....	120	East Spruce.....	25	30	7.50	"	3
630	J. M. Hart.....	Liberty E. B.....	190	Manchester.....	26	30	7.80	"	3
631	G. F. Boshier.....	Liberty S. B.....	93, 95	Liberty.....	60	30	18.00	"	3
632	Sarah Martin.....	Hanover S. B.....	178	Manchester.....	25	30	7.50	"	3
633	Joseph Nichols.....	Merrimack S. B.....	216	".....	25	30	7.50	"	3
634	D. A. Teggart.....	Merrimack S. B.....	186, 188	Merrimack.....	50	30	15.00	"	5
635	C. M. Edmunds.....	Chestnut W. B.....	39	Bireh.....	61	30	18.50	"	5
636	Mrs. Mary L. Mudgett.....	C.....	51	C.....	50	30	15.00	"	8
637	Arthur Trembly.....	Clarke.....	87, 89	Adams.....	85	30	15.00	"	9
638	F. F. Shaw.....	Kimmon.....	317	Kimmon.....	50	30	15.00	"	11
639	Mead, Mason & Co.....	Merrimack S. B.....	201	Merrimack.....	25	30	15.00	"	11
640	Hugh Conroy.....	Nashua.....	47	Nashua.....	30	30	7.50	"	11
641	Charles H. Colburn.....	Pine E. B.....	155	".....	30	30	9.00	"	11
642	Mrs. James Connolly.....	Laurel.....	329	Pine.....	60	30	15.00	"	12
643	Gordon Woodbury.....	Spruce S. B.....	16	Laurel.....	50	30	15.00	"	15
644	Henry W. Saxton.....	Main.....	4, 6, 8, 10, 12, 14, 16	Spruce.....	75	30	15.00	"	15
645	Prince & Edmunds.....	Concord.....	384	Main.....	85	30	25.50	"	16
646	Timothy Linehan.....	West Hancock.....	194	Concord.....	50	30	15.00	"	19
647	R. N. Parker.....	Anburn S. B.....	341	West Hancock.....	40	30	12.00	"	20
648	F. M. Hoyt.....	Belmont.....	606	Auburn.....	50	30	15.00	"	22
		Elm E. B.....	1,799	Belmont.....	50	30	.....	"	23
				Elm.....	123	30	.....	"	23

No. of li- cense.	NAME OF LICENSEE.	Location of sewer.	House No.	Street.	Feet front.	Price.	Amount.	Date.
649	F. M. Hoyt.....	Elm E. B.....	.....	Bay.....	102	\$0.30	.....	Oct. 23
650	Charles J. Adams.....	Riddle.....	67	Riddle.....	60	.30	\$15.00	" 27
651	Mrs. Emma C. Keith.....	Beech E. B.....	550, 552	Maple.....	50	.30	15.00	" 30
652	John H. Maynard.....	Walnut.....	269	Walnut.....	90	.30	15.00	" 31
653	D. K. Maek.....	Main.....	128	Main.....	50	.30	15.00	Nov. 1
654	George S. Merrill.....	Concord.....	375	Concord.....	50	.30	15.00	" 1
655	Franklin P. Johnson.....	Russell.....	.....	Russell.....	100	.30	15.00	" 1
656	F. G. Stark.....	West Hancock.....	231	West Hancock.....	50	.30	15.00	" 2
657	Dennis Connor.....	Grove S. B.....	213	Grove.....	50	.30	15.00	" 3
658	Patrick Ansbro.....	Pine E. B.....	141	Pine.....	50	.30	15.00	" 3
659	Michael Molloy.....	Grove S. B.....	181	Grove.....	50	.30	15.00	" 8
660	Alonzo Day.....	Hall.....	709	Hall.....	44	.30	13.20	" 9
661	Alonzo Day.....	".....	705	".....	44	.30	13.20	" 9
662	Alonzo Day.....	".....	697	".....	44	.30	13.20	" 9
663	Alonzo Day.....	".....	689	".....	44	.30	13.20	" 9
664	Alonzo Day.....	".....	683	".....	44	.30	13.20	" 9
665	George W. Dearborn.....	Dearborn.....	37	Dearborn.....	44	.30	13.20	" 9
666	Richard Ared.....	Cartier.....	18	Cartier.....	35.3	.30	15.00	" 13
667	John H. Maynard.....	Walnut.....	273	Sagamore.....	50	.30	15.00	" 13
668	James F. Garland.....	Green S. B.....	182	Grove.....	40	.30	12.00	" 16
669	Charles Lamoray.....	Cartier.....	43	Cartier.....	50	.30	15.00	" 16
670	George W. Haradou.....	Ash E. B.....	221	Ash.....	62	.30	15.00	" 16
671	Charles F. Hoyt.....	Prospect.....	297	Prospect.....	65	.30	Free.	" 17
672	Miss E. Marshall.....	Orange S. B.....	99, 101	Orange.....	64	.30	15.00	" 17
673	Elizabeth Sutcliffe.....	Auburn.....	152, 154	Auburn.....	25	.30	7.50	" 22
674	James Cullity.....	Green S. B.....	201	Green.....	50	.30	15.00	" 26
675	Mrs. B. Morrissey.....	".....	206	Grove.....	50	.30	15.00	" 26
676	Ira Sturtevant.....	Ash E. B.....	217	Ash.....	60	.30	Free.	" 26
677	M. E. Clough.....	Central.....	554	Central.....	50	.30	15.00	" 26
678	John McDermott.....	Grove S. B.....	178	Bell.....	50	.30	15.00	" 27
679	Charles Gaudes.....	Rimmon.....	41	Rimmon.....	50	.30	15.00	" 28
680	John F. Conroy.....	Pine E. B.....	145	Pine.....	50	.30	15.00	" 30
681	T. F. Glancy.....	Grove S. B.....	214	Bell.....	70	.30	21.00	" 30
682	Mrs. Elizabeth Regan.....	Walnut.....	.....	Walnut.....	70	.30	15.00	Dec. 3
683	Manley E. Clough.....	Spruce.....	74	Walnut.....	75	.30	15.00	" 17
684	Frederick Smyth.....	Chestnut W. B.....	.....	Canton.....	60	.30	18.00	" 19
685	James Glavin.....	Liberty E. B.....	{ 79, 81	Bridge.....	55	.30	15.00	" 22
686	M. Cote.....	Dubuque.....	810	Chestnut.....	55	.30	16.50	" 22
				Union.....				
				Dubuque.....				

Whole number of permits granted, 257.

REPORT OF COMMITTEE ON SEWERS AND DRAINS.

Following is the report of the committee on sewers and drains, prepared by the city engineer as clerk of the committee :

MANCHESTER, N. H., December 30, 1894.

Gentlemen of the City Councils :

The committee appointed by your honorable board to act as the joint standing committee on sewers and drains would submit the following report of the work done by them the present year, and the second in their term of office.

At the opening of the season there were twenty-eight orders for sewers voted in but not built. The following list gives the street, location, date of order, and length :

STREET.	LOCATION.	Date ordered.	Length in feet.
Amherst.....	Union to Ashland.....	May 2, 1893.	2,600
Blaine.....	Second to Hiram.....	July 5, 1892.	400
Conant.....	Extension to Montgomery.....	Sept. 5, 1893.	600
Concord	Hall easterly.....	Sept. 6, 1887.	200
Diekey.....	West Hancock to South Main..	July 10, 1893.	850
Front	Eddy to north of hotel.....	Sept. 5, 1893.	2,800
Hall.....	Myrtle to Mead	May 2, 1893.	2,050
Through ravine.....	Hall and Mead to Bridge } ...		
Hevey east back.....	Kelley to Columbus avenue....	July 10, 1893.	1,500
Jewett.....	Extension to Young.....	July 10, 1893.	1,200
Kelley.....	Extension to Joliette.....	July 10, 1893.	1,500
Lake avenue.....	Elm easterly.....	June 6, 1893.	150
Laurel.....	Hall to Beacon.....	Nov. 7, 1893.	800
Liberty east back.....	Webster southerly.....	Nov. 7, 1893.	225
Main.....	Granite to Piscataquog river..	May 2, 1893.	1,100
Mast.....	Extension westerly.....	Sept. 5, 1893.	200
Merrimack.....	Belmont to Milton.....	Oct. 6, 1891.	200
Monroe.....	River road to Elm.....	July 10, 1893.	500
Montgomery.....	Conant northerly.....	Sept. 5, 1893.	200
Myrtle.....	Hall east and west.....	May 2, 1893.	600
Pennacook.....	Canal to Union east back.....	Nov. 7, 1893.	3,000
Porter.....	Amherst northerly.....	May 2, 1893.	250
Prospect.....	Russell to Hall.....	July 5, 1892.	1,250
River road.....	Webster to Clarke.....	July 10, 1893.	1,300
Valley.....	Elm to Belmont.....	Nov. 7, 1893.	4,900
Webster.....	Walnut to Beech.....	July 5, 1892.	270
West Hancock.....	Diekey westerly.....	July 5, 1892.	1,000
Wilson Hill.....	Central to Merrimack.....	Sept. 21, 1893.	550
Total.....	.....	.....	30,195

Of these, eleven have been completed, as follow :

Conant, Hall, through ravine, Lake avenue, Liberty east back, Main, Monroe, Montgomery, Prospect, Webster, and West Hancock.

Two, Myrtle and River road, have been partially completed.

The total length of the above was 8,185 feet, leaving 22,010 feet of sewers voted in previous to 1894, not completed.

During the year thirty-two orders for sewers have received favorable action, and of these twenty-one have been built. At the present time there are orders for thirty-four sewers which have passed your honorable board but which have not been constructed and four which have been partially built.

The committee have held seven meetings, as follows: March 30, April 27, June 30, August 3, August 28, October 2, November 2.

The total number of petitions presented to the committee has been twenty-five. Seven reports were sent in to the city councils, recommending the passage of orders authorizing the building of certain sewers. These orders will be found in the list of orders written by the city engineer's department.

The following is a list of the petitions referred to the committee and the action taken on them. The dates of the passage of the orders to build the same will be found in the engineer's report of orders written for presentation to the city councils :

Adams street, commencing at the proposed sewer through the Livermore land, and thence northerly in Adams to Clarke. W. C. Wilson. Committee voted to submit an order to build, March 30.

Auburn street, commencing at the easterly end of Auburn, as lately laid out, thence in a westerly direction to Canton, and thence to connect with the city sewers. Eugene E. Mann. Committee voted to submit an order to build, November 2.

Hevey east back street, commencing at a point 200 feet south of Wayne. M. Bessette. Committee voted to submit an order to build, August 28.

Rimmon east back street, commencing at a point 200 feet south of Wayne, and thence in a northerly direction to connect with the present sewer in Amory. Gazaille & Call. Committee voted to submit an order to build, March 30.

Pine, Grove, Green south back, and Grove south back streets, commencing at Pine and Auburn, thence southerly in Pine to Grove, thence easterly in Grove to Pine east back, and thence southerly in Pine east back to connect with laterals in Green south back and Grove south back. T. F. Glancy. Committee voted to submit an order to build, March 30.

Auburn south back street, commencing at the easterly end of Auburn south back near Belmont, and thence in a westerly direction to connect with a proposed sewer in Wilson. A. H. Merrill. Committee voted to recommend that it be laid over until the Wilson-street sewer is built, June 30.

Union street, commencing at the intersection of the projected sewer across the Livermore land and the sewer line of Union, and thence in a northerly direction to Clarke, according to the city's plan of sewers. James H. Harrington. Committee voted to submit an order to build, April 27.

Cedar south back street, commencing at the intersection of the east line of the Elliott Manufacturing Company's land and Cedar south back about 151 feet east of Hall, and thence westerly to the projected sewer in Wilson, according to the city's plan of sewers. J. L. T. Brown. Committee voted to recommend that it be laid over until the Wilson-street sewer is built, June 30.

Union east back street, commencing at Webster, thence in a southerly direction about 100 feet. E. W. Perkins. Committee voted to submit an order to build, April 27.

Elm west back street, commencing at the northerly terminus of the Elm west back sewer, and thence in a northerly direction about 70 feet. N. S. Bean. Committee voted to submit an order to build, April 27.

Old Bridge street road, commencing at the east line of Hall at Bridge, and thence northeasterly in Old Bridge about 140 feet. W. H. Emerson. Committee voted to recommend that the petitioners be given leave to withdraw.

Joliette street, commencing at Kelley, and thence in a southerly direction to Amory through Joliette. A. T. Beaumier. Committee voted to recommend that it be laid over for the present, June 30.

Hayward street, commencing at a point in Hayward near Cypress, thence westerly in Hayward to Taylor, thence northerly in Taylor to Valley, thence to connect with the city sewers when built. S. G. Fletcher. Committee voted to recommend that the petitioners be given leave to withdraw until the Valley-street sewer is built, June 30.

Kelley street, commencing at the terminus of the sewer as now built, and thence westerly to Joliette. The Rimmon Manufacturing Company. Committee voted that no action be taken as the sewer had already been voted in, June 30.

Bridge street, commencing at Hall, and thence easterly to the east line of Belmont. C. H. Tarbell. Committee voted to submit an order to build, August 3.

Bartlett street, commencing at Wayne, and thence southerly to the south end of Bartlett. Albert Oliver. Committee voted to recommend that petitioners be given leave to withdraw until a suitable outlet is provided through a highway, November 2.

Wilson street, commencing at the terminus of the present sewer in Wilson, and thence in a southerly direction to Somerville. William B. Burpee. Committee voted to submit an order to build from Valley to Somerville, August 3.

Pearl street, commencing at the sewer in Russell, and thence in an easterly direction about 125 feet. John A. Bartlett. Committee voted to submit an order to build, August 3.

Manchester street, commencing at the present terminus of the

sewer near Milton, and thence in an easterly direction to Beacon. George A. Clark. Committee voted to submit an order to build, August 28.

Prospect street, commencing at the present sewer in Russell, and thence in a westerly direction about 125 feet. Sarah C. Branch. Committee voted to submit an order to build, October 2.

Liberty east back street, commencing at the present sewer in Salmon, and thence in a southerly direction about 150 feet. Silas R. Wallace. Committee voted to submit an order to build, November 2.

Hale and Harvell streets, commencing at Main and Harvell, thence in an easterly direction to Hale, and thence in a northerly direction 450 feet to connect with the city sewers. George H. Wilson. Committee voted to submit an order to build, November 2.

Pearl street, commencing at the present sewer in Hall, and thence in a westerly direction about 130 feet. W. E. Drew. Committee voted to submit an order to build, November 2.

Grove street, commencing at the terminus of the present sewer east of Belmont, and thence in an easterly direction about 150 feet. William G. Westover. Committee voted to submit an order to build, November 2.

SEWERS VOTED IN DURING THE YEAR.

STREET.	LOCATION.	Feet.
Adams	Chestnut to Union	540
Amherst road	Mast to Milford	1,230
Auburn road	Canton easterly	600
Belmont	Valley northerly	230
Bridge	Hall to Belmont	350
Canton	Spruce to Auburn	500
Clinton	Main to West	520
Dover	Clinton northerly	160
Elm west back	Extension near Dean	70
Green	Pine to Pine east back	126
“ south back	Pine east back to Union	300
Grove	Extension easterly	150
“ south back	Pine east back to Union	300
Hale	Schiller southerly	450
Hall	Mead southerly	200
Harvell	Hale to South Main	700
Hevey east back	Kelley southerly	1,200
Hill	To Schiller	1,200
Schiller	Hill to Merrimack river	
Liberty east back	Salmon southerly	150
Livermore land	Chestnut to Union	810
Malvern	Extension southerly	100
Manchester	Near Milton to Beacon	300
Mast	Extension westerly	610
Pearl	Russell easterly	610
“	Hall westerly	130
Pine east back	Green southerly	400
“	Auburn southerly	540
“	Amherst northerly	150
Prospect	Russell westerly	125
Rimmon east back	Amory southerly	750
Spruce	To Canton	800
Union	Ray brook to Clarke	600
“ east back	Webster southerly	100
West	Clinton northerly	250
Wilson	Spruce to Valley	1,800
“	Valley to Somerville	1,800
Total .....	.....	18,366

Of the above sewers 6,733 feet have been constructed.

This comprises all that has come within the province of the committee on sewers and drains, and is respectfully submitted.

ALDERMAN CHRISTIAN L. WOLF, *Chairman*,
 ALDERMAN JOHN P. CRONIN,
 COUNCILMAN GEORGE E. HEATH,
 COUNCILMAN DAVID H. BURBANK,
 COUNCILMAN WILLIAM G. LANDRY,

Committee on Sewers and Drains.

W. H. BENNETT,
Clerk of Committee.

REPORT OF THE COMMITTEE ON STREETS.

The second annual report of the committee on streets, prepared by the city engineer as clerk of the committee, is herewith presented :

MANCHESTER, N. H., December 30, 1894.

Gentlemen of the City Councils :

The committee appointed by your honorable board to act as the joint standing committee on streets would submit the following report of the work done by them and under their direction the present year :

The committee has held eight meetings, as follows: April 10, June 4, July 2, August 3, September 26, October 2, November 1.

Number of petitions received, 32 ; granted a hearing, 25 ; given leave to withdraw, 6.

Petitions.

The following is a list of the petitions referred to the committee, and the action taken on them :

CILLEY ROAD. For building to grade Cilley road from Beech street, and thence in an easterly direction to top of hill or about the line of Wilson street produced.

Thomas Chilcott.

April 10, committee voted to recommend grade as shown by city engineer on plan of Cilley road from Beech to Wilson street.

AUGER AVENUE. For a new highway in said city, beginning at a stake on the west line of Nutt road in South Manchester,

and thence in a westerly direction to the easterly line of Calef road.

Daniel Connor.

April 10, committee voted to recommend that a hearing be granted.

PLUMMER STREET. For a new highway in said city, beginning at the east line of Pine street, and thence in an easterly direction to the westerly line of Union street, known as Plummer street.

Thomas Stewart.

April 10, committee voted to recommend that a hearing be granted.

SHASTA STREET. For a new highway in said city, beginning at a point on the easterly side of Elm street, where the center line of Shasta street, produced easterly, intersects the easterly line of Elm street, and thence in an easterly direction to the Calef road.

F. E. Gilford.

April 10, committee voted to recommend that the petitioners be given leave to withdraw.

RAY STREET. For a new highway in said city, beginning at a stake at Ray brook, said stake being at the terminus of Ray street, as laid out by the board of aldermen August 18, 1892, thence in a northerly direction to a stake on the south line of Clarke street, according to a plan of said section known as the Livermore plan of the Adams land.

Thomas L. Livermore.

April 10, committee voted to recommend that a hearing be granted.

FOSTER AVENUE. For a new highway in said city, beginning at a stake on the southerly line of a highway called Valley street, 217.25 feet from the westerly line of a highway called Jewett street, and on the center line of Foster avenue, as proposed, and thence in a southerly direction to a stake on the northerly line

of a highway called Hayward street, 269.02 feet westerly from a stone bound on the easterly line of said Jewett street.

John A. Dunlap.

April 10, committee voted to recommend that a hearing be granted.

TITUS AVENUE. For a new highway in said city, beginning at a stake on the west line of Beech street ; said stake is about 343.-25 feet northerly of a stone bound which is the division line between the J. B. Titus land and the northerly line of the Young land, known as Titus avenue, and thence in a westerly direction about 540 feet to a stake on the westerly line of Union street, as staked out and shown on a plan of said land known as the J. B. Titus plan.

Luther E. Carswell.

April 10, committee voted to recommend that a hearing be granted.

SECOND STREET. For a new highway in said city, beginning at a stake on the River road near the northwest corner of Warren G. Currier's house, and thence in a northerly direction to a stake at the Manchester line in said city.

R. M. Rollins.

April 10, committee voted to recommend that a hearing be granted.

WALLACE STREET. For a new highway in said city, beginning at a stake standing on the southerly side of Winter street, and about 110 feet westerly from the angle in said street, and running thence in a southerly direction 52½ feet to a stake, thence westerly about 290 feet to a stake standing 15 feet southerly from the southerly corner of a lot now or formerly owned by Emma E. Hatch.

The James Baldwin Company.

June 4, committee voted to recommend that a hearing be granted.

HAYWARD STREET. For a new highway in said city, beginning at a stake on the west line of Belmont street, and on the

line of Hayward street projected, and thence in a westerly direction to a stake on the easterly line of Hall street, being an extension of Hayward street, from Hall to Belmont.

J. K. Mitchell.

June 4, committee voted to recommend that a hearing be granted.

MASON STREET. For a new highway in said city, beginning at a stake on the south side of Hayward street, being the west side of the proposed Mason street, and thence in a southerly direction to a stake on the north side of Young street, or Young road, being the extension of Mason street.

Isaac Huse.

June 4, committee voted to recommend that a hearing be granted.

DICKEY STREET. That the name of Dickey street be changed to Goffe street.

Fred G. Stark, for New Hampshire Improvement Company.

No action taken.

BELMONT STREET. For a new highway in said city, beginning at a stake on the north line of Old Bridge street road, and in the center line of Belmont street, and thence in a northerly direction to a stake standing in the center of Belmont and Pearl streets, being an extension of Belmont street, as shown on the plan of said section made for Mead, Mason & Co.

Mead, Mason & Co.

June 4, committee voted to recommend that a hearing be granted.

MEAD STREET. For a new highway in said city, beginning at a stake on the east line of Hall street and on the south line of Mead street, and thence in an easterly direction to a stake on the west line of Belmont street, the above line being the south line of Mead street, as shown on a plan known as the Mead, Mason & Co.'s plan of land in said section.

Mead, Mason & Co.

June 4, committee voted to recommend that a hearing be granted.

SALMON STREET. For a new highway in said city, beginning at the westerly line of Walnut street and in the center of Salmon street, and thence in an easterly direction to Beech street, said street to be the continuation of Salmon street.

Charles W. Eager.

June 4, committee voted to recommend that a hearing be granted.

GLENWOOD AVENUE. For a new highway in said city, beginning at Bedel street, shown on the plan of Glenwood avenue, West Manchester, and thence in a southerly direction to the south line of Griffin street, as shown on said plan of Glenwood avenue.

Augustine Denis.

July 2, committee voted to recommend that a hearing be granted.

(There is no claim for damages to be made in this case. I hereby waive all notices and forms and ask an early consideration.
R. D. W. McKAY.)

CODY STREET. For a new highway in said city, beginning at a stake standing on the private way known as Cody street, at a point on the south side of the Concord & Montreal Railroad known as the Portsmouth branch, and thence in a southerly direction to a stake standing on the southerly line of the old range-way.

M. V. B. Garland.

July 2, committee voted to recommend that a hearing be granted.

DUTTON STREET. For a new highway in said city, beginning at a stake on the north line of Amherst street, in the center of Dutton street, thence in a northeasterly direction to a stake on the south side of Lowell street, in the center line of Dutton street.

Mrs. Elizabeth S. Jackson.

July 2, committee voted to recommend that petitioners be given leave to withdraw.

WELCH AVENUE. For a new highway in said city, beginning at the easterly terminus of Welch avenue, thence in a northeasterly direction to Nutt road.

George H. Dunbar.

July 2, committee voted to recommend that petitioners be given leave to withdraw.

CLAY STREET. For a new highway in said city, beginning at a stone monument on the easterly side of Taylor street, thence in a westerly direction to a stone monument on the westerly side of Cypress street; the line above described to be the northerly side of the highway, being a part of Clay street, shown on a plan of the southern portion of the city of Manchester adopted by resolution of the city councils July 15, 1873.

Mrs. Celia Cotter.

July 2, committee voted to recommend that petitioners be given leave to withdraw.

MYSTIC AVENUE. For building Mystic avenue from Oakland avenue to Glenwood avenue, a distance of about 200 feet.

Freeman G. Riddle.

August 3, committee voted to recommend an order to build the same.

PUTNAM STREET. For a new highway from the intersection of Dubuque and Putnam streets, thence in a westerly direction to the intersection of Putnam and Bartlett streets, being an extension of Putnam street.

Albert Oliver.

November 1, committee voted to recommend that the petitioners be given leave to withdraw.

OAKLAND AVENUE. For a new highway in said city, beginning at a stake in the center line of Oakland avenue, on the easterly end of said Oakland avenue as now laid out, thence in an easterly direction to the west side of Paige street, a continuance or extension of Oakland avenue.

F. A. Platts.

August 3, committee voted to recommend that a hearing be granted.

BARTLETT STREET. For building Bartlett street southerly to Sullivan street, according to the grade as established by the city.
Johann Hammer.

August 3, committee voted to recommend an order to build.

WAYLAND AVENUE. For a new highway in said city, beginning at the junction of Mammoth road and Wayland avenue, and thence in a westerly direction to Massabesic street, so called, the above lay-out to be an extension of Wayland avenue.

Charles D. Gadbois.

August 3, committee voted to recommend that a hearing be granted.

PLATTS AVENUE. For a new highway in said city, beginning at a stake on the southerly side of the Portsmouth branch of the Concord & Montreal Railroad, standing in the center of Platts avenue, so called ; (said street being already built, there are to be no land damages ;) and thence in a southerly direction to a stake on the northerly side of the Candia road.

F. A. Platts.

August 3, committee voted to recommend that a hearing be granted.

OAKLAND AVENUE. For a new highway in said city, beginning at a stake on the westerly side of Revere avenue, in the center line of Oakland avenue, and thence in a westerly direction to a stake on the east side of the Mammoth road, said street being a continuance of Oakland avenue.

F. A. Platts.

August 3, committee voted to recommend that a hearing be granted.

GLENWOOD AVENUE. For a new highway in said city, beginning at a stake in the center line of Glenwood avenue, as already laid out, and thence in an easterly direction to a stake standing

on the westerly line of the land of James A. Colby, said street to be an extension of Glenwood avenue.

F. A. Platts.

August 8, committee voted to recommend that a hearing be granted.

WELCH AVENUE. For a new highway from the intersection of Welch avenue and Calef road, thence in a northeasterly direction to Nutt road, being an extension of Welch avenue.

George H. Dunbar.

November 1, committee voted to recommend that the petitioners be given leave to withdraw.

WOODLAND AVENUE. For a new highway in said city, beginning at a stake in the center line of Woodland avenue, and thence in a southerly direction about $425\frac{1}{2}$ feet, to the north line of the Candia road in said city.

(We hereby acknowledge due and sufficient notice of the within petition and this order thereon, and agree to take no exception as to time or manner of calling hearing upon the same, and waive all claims for damages. ALFRED J. SANBORN.)

November 1, committee voted to recommend that a hearing be granted.

SAGAMORE STREET. For a new highway in said city, beginning at a stake on the east side of Walnut street and on the south line of Sagamore street; said stake is 441.4 feet north of the north line of Gore street; thence in an easterly direction about 1,112.26 feet to a stake on the west line of Oak street and 481.14 feet north of the north line of Gore street, said line being the south line of Sagamore street, as shown on plan 1,042 in the city engineer's department.

(We hereby acknowledge due and sufficient notice of the within petition and this order thereon, and agree to take no exception as to time or manner of calling hearing upon the same, and waive all claims for damages, provided the street is laid out in accordance with the plan of said street. W. M. BUTTERFIELD.)

October 4, committee voted to recommend that a hearing be granted.

SOMERVILLE STREET. For building the highway known as Somerville street from Union street to Beech street.

Alexis Leclerc.

November 1, committee voted to recommend an order to build.

This comprises all the work that has come within the province of the committee on streets, and is respectfully submitted.

ALDERMAN BYRON WORTHEN, *Chairman*,
ALDERMAN SAM C. LOWELL,
COUNCILMAN GEORGE E. HEATH,
COUNCILMAN CHARLES H. HARVEY,
COUNCILMAN HOWARD C. HOLT,

Committee on Streets.

W. H. BENNETT,

Clerk of Committee.

STREETS.

Manchester is lamentably behind in one point of municipal administration in comparison with other places, that of allowing lot owners to occupy the highways with fences and buildings. The city has an ordinance which is rigorously enforced enjoining abutters from building beyond their street line, but thus far little has been done toward compelling the removal of those fences and buildings which were constructed years ago and which project from a foot to several feet into the street.

A notable example of this occurs on Derry street. On the north side of this thoroughfare every fence projects from six to fifteen feet into the street, the bay window of one house is over the line and eight feet of another house will have to be removed. Recent builders have conformed in a measure to the correct line.

On portions of the Candia road the same state of affairs exists, the stone walls being from two to twenty feet into the street.

As this road has been marked by stone bounds nearly its entire distance, no excuse can be given by the abutters for not conforming to the lines.

Throughout the city there is noticed a tendency to occupy city land, oftentimes to the detriment of the appearance of the streets. The lukewarm policy pursued by the city in the past ought to give way to a policy that would compel a proper observance of the laws in this respect.

LAYING OUT STREETS.

One of the most important things to be considered in street extensions is the cost of constructing them when laid out. It is a very simple matter to go through the formalities required by law and declare the street legally laid out. Then comes the question of building. If the route is rough and uneven, ledgy or swampy, the city must be put to considerable expense to build what will for years be a subject for outlay rather than a source of revenue. If the city refuses to or delays in building the street, then the abutters petition the court, and the city is compelled to build.

If the custom in vogue in other cities could be followed here it would result in saving thousands of dollars in this direction. It is the law or custom in those places to compel the persons desiring a street to build it to the established grade before the city will lay it out; as the land owners are the ones directly benefitted by the street it would seem but fair that they do the building. At any rate it would have a tendency to keep down the too rapid growth of the city beyond its ability to properly provide sewers, water, and lights.

BUILDING STREETS.

It has always been a question whether or not it was policy to build outlying roads to their full width, and the arguments have nearly always been against such a practice. In discussing this question one important factor, as far as Manchester roads are concerned, has been overlooked. The supply of good gravel for

use on the streets is somewhat limited unless hauled for a long distance. This is one of the principal causes that has operated against building and keeping in repair the suburban roads. These thoroughfares, besides being used by residents, are in a great measure frequented by pleasure drivers, and the city owes to them the duty of providing a highway in at least semi-decent repair. It may not be generally known, but on each side of the numerous highways a good quality of gravel can be obtained suitable for top-dressing the roads, at the same time improving the appearance of them by removing the unsightly bushes, rocks, and hillocks that line either side.

One of the most pronounced cases of this kind occurs on the Bridge-street extension, where for nearly the whole distance the road is scarcely wide enough for two teams to pass. This is one of the most frequented routes to the lake and would be a good place to make a beginning in this direction. Mammoth road, Proctor road, and the Lake Shore road are notable instances in this line.

STREET LINES AND GRADES.

The calls upon this department for street lines and grades have been numerous. As each year rolls by the city's growth extends, and our work, instead of being confined within easy reach of the office, is now from one to three miles out in any direction. It has been the aim of this department to attend to the work as promptly as possible, and in the order received. Considerable trouble is occasioned by unreasonable persons who have an idea that they have but to give an order to have it attended to immediately. Oftentimes it is a week before it can be reached, and in the meantime they besiege the office, and even carry their complaints to the mayor that they cannot get their work done. His Honor has invariably explained the situation to them and referred them back to this office.

This brings up a point advocated in former reports, that a complete plan of a street should be prepared, showing the lines and grades, the same to be presented for consideration at the

time the street is laid out. With this done the department could work to better advantage, and possibly silence those who make it a point to find fault because their wants are not attended to immediately, regardless of the fact that the department has no data for the work. To obviate this trouble as much as possible, extra assistants have been employed during the summer season, and the work kept better in hand than ever before.

PARKS.

In Stark park lines and grades were given for the construction of an avenue at the southern end of the park.

In Derryfield park lines and grades were given for the construction of the circular driveway.

In addition to this, sketches have been made from time to time and instructions given the superintendent regarding the work in hand.

PINE GROVE CEMETERY.

During the early spring the remaining section left from the previous year was surveyed and plotted on the plans, completing the work in this direction. A tracing of the large office plan has been made for the use of the superintendent.

There has been made for the treasurer a portfolio containing the plan in sections, one on a sheet, reserving the opposite sheet for the areas, owners' names, and such transfers as may be made.

The section south of the cemetery, purchased of C. C. Webster, has been surveyed, the lines established and marked by stone bounds, and a plan made showing a partial lotting.

Several new sections in the cemetery have been staked out into lots as called for, and the regular work kept well in hand.

MAIN-STREET BRIDGE.

This department has had general oversight over the lines and grades during the construction of this bridge, and in this capacity made daily visits during the progress of the work. Plans

were made for the street commissioners, showing the surroundings, also a design for the bridge which, with some modifications, was used as the basis of the present structure.

STONE BOUNDS.

It has been the policy of this department to mark with substantial stone bounds, as far as possible, all new lines established. The past year has seen a considerable advance in this direction, notably in the Pine Grove cemetery extension and on Candia road, the former having every angle but one so marked, and the latter being marked from the Mammoth road to the three-mile post. Numerous other points, both in the city and the suburbs, have been definitely located and secured by this means from loss. It is the intention of this department to continue the work as fast as time will allow.

SEWER BOOK.

The rapid growth of the city in the suburbs and the consequent addition of new streets and sewers has rendered the bound volume of sewer sheets in the office inadequate to provide for the additions. To remedy this defect, and at the same time allow for future additions, a new book is in process of construction on a larger scale than the former, and designed to show in addition to the sewers, the water and gas mains, house numbers, lot numbers, numbers of sewer licenses, and frontage of lots.

When the book is completed it will be possible to tell at a glance the exact status of any lot in reference to its sewerage facilities, and it will more than pay for itself in the saving of time.

COMMITTEE WORK.

The city engineer, as clerk of the committees on streets and on sewers and drains, has attended each meeting, keeping a complete record of the proceedings, which are on file in this office.

In addition meetings have been attended of the city government, committees on Valley cemetery, Pine Grove cemetery,

city farm, lands and buildings, claims, commons and parks, the street and park commission, and the board of aldermen.

Besides the work before enumerated, many questions have been answered from engineers, boards of trade, and others in various cities throughout this country and Canada.

I would respectfully tender my acknowledgments to his Honor the Mayor and the various committees of the city council for the support which they have given.

I also wish to acknowledge the courtesies shown by the various heads of departments, and the co-operation of the assistants of this department.

Respectfully submitted.

WINFRED H. BENNETT,

City Engineer.

JANUARY 1, 1895.

REPORT
OF THE
TRUSTEES OF THE CITY LIBRARY.

BOARD OF TRUSTEES.

WILLIAM C. CLARKE, Mayor,
JOHN T. GOTT, Pres. Com. Council, } *ex-officio.*
ISAAC W. SMITH.
NATHAN P. HUNT.
MOODY CURRIER.
LUCIEN B. CLOUGH.
HERMAN F. STRAW.
WALTER M. PARKER.
CHARLES D. McDUFFIE.

OFFICERS.

President, *ex-officio.*

WILLIAM C. CLARKE.

Clerk and Treasurer.

NATHAN P. HUNT.

Librarian.

KATE E. SANBORN.

REPORT

OF THE

TRUSTEES OF THE CITY LIBRARY.

To the City Councils of the City of Manchester :

The Trustees of the City Library respectfully submit their forty-first annual report of the affairs of the library, and with the same the report made to them by the treasurer of the board, containing an account of the sums received and the expenditures made by him in behalf of the board from the funds in their possession and under their control ; and also the report of the librarian made to the board, giving in detail the statistics of the operation of the library during the past year, and its condition at the close of the year.

From the treasurer's report it appears that during the year the sum of one thousand and twenty-six dollars and eighty-one cents has been expended for the purchase of books, and the sum of one hundred and seventy-nine dollars and seventy-four cents for the purchase of periodicals, making a total expenditure for both these purposes of twelve hundred and six dollars and fifty-five cents.

Of the amount expended for the purchase of books the sum of one hundred and ten dollars and thirty-seven cents was used for the purchase of books to replace those worn out and withdrawn from circulation ; and the sum of twelve dollars and sixty-two cents was taken from the income of the Dean fund and used for the purchase of books for that department of the library. Excluding these two amounts the sum expended for the purchase of

new books was nine hundred and three dollars and eighty-two cents, leaving a balance in the hands of the treasurer at the close of the year of seven hundred and fifty-six dollars and sixty-six cents.

The balance of the accumulated income of the Dean fund at the end of the year was six thousand eight hundred and three dollars and twenty-four cents. Only the sum of twelve dollars and sixty-two cents was expended from the income of this fund during the year.

The accumulated income of the Mary E. Elliot fund at the close of the year was one thousand and thirty-nine dollars and twenty-eight cents.

The amount of the Eliza Eaton fund, with interest, December 31, 1893, was twenty-nine hundred and seventy-four dollars and fifty-nine cents. During the year 1894 there was received for interest on this fund and its accumulations the sum of one hundred and eighty dollars and seventy-six cents. In accordance with a vote of the trustees, one hundred and twelve dollars and twenty cents of the amount received for interest has been added to the principal of fund (\$2,887.80), making the same three thousand dollars, leaving a balance of interest of one hundred and fifty-five dollars and thirty-five cents to be used hereafter for the purchase of books.

The incidental expenses of the library for the past year have been three thousand two hundred and seventy-four dollars and six cents, which amount includes the sum of four hundred and thirty dollars and three cents expended for reclassification of the library and preparation of card catalogue, and the sum of four hundred and twenty-four dollars and seventy-three cents paid for printing the new fiction catalogue compiled during the year by the librarian. The items of these expenditures may be found in detail in the annual report of the city, the bills for the same having been paid by the city treasurer upon their approval by the trustees, from the sum appropriated by the city councils for the library.

The librarian reports that the library has been open for the

delivery of books three hundred and six days, during which period the number of books delivered for home use was fifty-five thousand and fifty-four, an average of about one hundred and seventy-nine per day. In addition to this number delivered for general circulation nine thousand eight hundred and seventy-three books were delivered for use at the reading-room at the library, an average of about thirty-two per day. The total number of books delivered during the year for both these purposes was sixty-four thousand nine hundred and twenty-seven, an average of about two hundred and twelve per day. As compared with the year preceding, the circulation for home use shows a decrease of two hundred and forty-one volumes, while the number delivered for use at the library shows an increase of sixteen hundred and seventy. The total circulation is fourteen hundred and twenty-nine greater than the year preceding.

Seventy-four different periodicals have been regularly received at the library during the year,—fifty-seven by purchase and seventeen by donation,—and at the completion of the several volumes they have been bound and placed upon the shelves for general circulation.

The number of volumes withdrawn from circulation during the year on account of their worn and defaced condition was one hundred and fifty-six. Of this number and of others retired from circulation in previous years for like reason, seventy-eight volumes have been replaced at a cost of one hundred and ten dollars and thirty-seven cents.

The number of volumes in the library at the date of the last report, including maps and pamphlets, was thirty-seven thousand two hundred and four.

During the year there have been added by purchase seven hundred and forty-seven volumes; by donation, three hundred and twenty-six volumes; and seventy-four volumes of periodicals have been bound,—a total of eleven hundred and forty-seven volumes, making the number of bound volumes in the library at the end of the year thirty-seven thousand six hundred and thirty-three, and the total number, including sixteen maps and seven

hundred and two pamphlets, thirty-eight thousand three hundred and fifty-one.

Following the report of the librarian will be found the names of persons donating books to the library during the year, with the number presented by each person. It has been thought best to omit the titles of the books presented on account of the expense attending the printing of the same in connection with the report of the trustees. To all who have in this manner contributed to the increase of the library, the trustees have caused due acknowledgment to be made.

Doubts were expressed in the last report of the trustees regarding the advisability of printing the new catalogue from the manuscript as then arranged, and its publication was postponed until the new librarian could have an opportunity to examine the work. Further examination of the manuscript in the early part of the year by a committee of the trustees, acting with the librarian, convinced the board that the manuscript should not be printed until radically revised and reclassified.

Under the circumstances it was thought best to still further postpone the publication of a complete catalogue and to have prepared and published as soon as possible a catalogue of the fiction contained in the library, which seemed most needed. This work was undertaken at once by Miss Sanborn, and in addition to her duties as librarian she has during the year prepared and published a catalogue of all the fiction in the library at the close of the year. Great credit is due Miss Sanborn for her conscientious work upon this catalogue and her efforts for the better accommodation of the patrons of the library. Since the publication of the catalogue many flattering and appreciative notices of its merits have been received from librarians in different parts of the country. The whole library is now being reclassified under the direction of Miss Sanborn according to the Cutter expansive system, and a new card catalogue is being made at the same time. When this work is finished it will be possible to publish a complete catalogue of the library if thought desirable.

The duties of librarian have been discharged by Miss Sanborn

with fidelity and earnest effort to make the library of the most possible advantage to the public. The trustees consider the city fortunate to be able to secure the services of so competent and progressive a librarian.

In closing, the trustees desire to renew their acknowledgments to the members of the city councils for the courtesy and consideration with which their suggestions relating to the library have been received and carried out.

APRIL 8, 1895.

In board of trustees read and approved and ordered to be signed by the chairman and clerk of the board and transmitted to the city councils.

N. P. HUNT,
Clerk.

WM. C. CLARKE,
Mayor.

TREASURER'S REPORT.

To the Board of Trustees of the City Library :

The treasurer of the board submits the following account of the receipts and expenditures by the board of the funds received on account of the library :

1894.	DR.	
Jan. 1. To balance of appropriation, etc.	\$890.39	
Feb. 6. Mrs. M. J. Buncher, fines, catalogues, etc.	60.20	
Oct 12. appropriation for books for 1894	1,000.00	
	<hr/>	\$1,950.59
Jan. 1. To balance of income of Dean fund	\$6,314.57	
income of Dean fund	108.00	
April 2. income of Dean fund	60.00	
interest on accumulation of income	3.04	
July 1. income of Dean fund	108.00	
interest on accumulation of income	189.45	
Oct. 18. income of Dean fund	30.00	
interest on accumulation of income	2.80	
	<hr/>	\$6,815.86

REPORT OF THE TRUSTEES OF THE CITY LIBRARY. 469

Jan. 1.	To Mary E. Elliot fund . . .	\$2,000.00	
	balance of interest on Mary E. Elliot fund . . .	865.10	
April 2.	interest on Mary E. Elliot fund	80.00	
	interest on accumulation of income	34.60	
Oct. 18.	interest on Mary E. Elliot fund	40.00	
	interest on accumulation of income	19.58	
		<hr/>	\$3,039.28
Jan. 1.	To Eliza A. Eaton fund . . .	\$2,887.80	
	balance of interest on Eliza A. Eaton fund . . .	86.79	
April 2.	interest on Eliza A. Eaton fund	115.48	
	interest on accumulation of income	3.44	
Oct. 18.	interest on Eliza A. Eaton fund	57.74	
	interest on accumulation of income	4.10	
		<hr/>	\$3,155.35
			<hr/>
			\$14,961.08

1894.

CR.

Jan. 6.	Paid New England News Co., periodicals	\$14.82
10.	Little, Brown & Co., books . . .	11.75
10.	Little, Brown & Co. (Dean fund), books	5.87
16.	George H. Polley & Co., periodicals	6.00
24.	Boston Book Co., periodicals .	5.00
Feb. 3.	New England News Co., periodicals	9.77
6.	Houghton, Mifflin & Co., books .	6.00

Feb.	6.	Paid Little, Brown & Co. (Dean fund), books	\$6.75
	6.	Frank B. Webster Co., periodicals .	1.00
	6.	Sampson, Murdock & Co., books .	2.00
March	2.	New England News Co., periodicals	13.11
	12.	Central Law Journal Co., periodicals	5.00
April	3.	New England News Co., periodicals	15.25
	5.	Little, Brown & Co., books . . .	2.00
	6.	Lawyers' Co-operative Publishing Co., books	5.00
	24.	W. B. Clarke & Co., books . . .	181.63
May	7.	George E. Littlefield, books . . .	4.50
	15.	New England News Co., periodicals	11.10
	16.	Little, Brown & Co., books . . .	3.50
	22.	James H. Lamb, books	5.00
	22.	Houghton, Mifflin & Co., books .	5.00
June	9.	Publishers' Weekly, periodicals . .	5.00
	9.	Publishers' Weekly, books . . .	29.16
	12.	New England News Co., periodicals	12.01
	12.	W. B. Clarke & Co., books . . .	53.04
	14.	Boston Book Co., books	9.00
July	7.	New England News Co., periodicals	13.61
	18.	Catholic Publishing Society Co., books	67.30
	18.	Granite Monthly Co., books . . .	1.25
	21.	W. B. Clarke & Co., books . . .	28.76
	21.	D. Appleton & Co., books	10.00
	26.	W. B. Clarke & Co., books . . .	17.41
Aug.	6.	New England News Co., periodicals	12.91
	6.	Edwin J. Bartlett, books	2.70
	7.	Little, Brown & Co., books . . .	2.00
Sept.	1.	Boston Book Co., books	2.58
	1.	W. B. Clarke & Co., books . . .	5.59
	1.	W. B. Clarke & Co., replaced books	48.05
	7.	New England News Co., periodicals	17.37
	24.	Granite Monthly Co., books . . .	2.00

Sept.	25.	Paid Library Bureau, books	\$1.00
Oct.	6.	W. B. Clarke & Co., replaced books	16.54
	6.	W. B. Clarke & Co., books	102.23
	12.	Charles L. Woodward, books	2.22
	12.	New England News Co., periodicals	13.23
	13.	W. B. Clarke & Co., books	8.19
	13.	W. B. Clarke & Co., replaced books	2.62
	22.	Boston Athenæum, books	20.00
	22.	George E. Littlefield, books	1.35
	24.	Lawyers' Co-operative Publishing Co., books	5.00
Nov.	5.	New England News Co., periodicals	11.07
	5.	W. B. Clarke & Co., books	60.98
	10.	Little, Brown & Co., books	4.25
	10.	W. B. Clarke & Co., books	17.52
	10.	W. B. Clarke & Co., replaced books	43.16
	14.	David Cross, books	6.00
	15.	Little, Brown & Co., books	3.75
	15.	W. B. Clarke & Co., books	60.65
	24.	L. A. Morrison, books	2.25
	28.	Sampson, Murdock & Co., books	2.00
Dec.	6.	New England News Co., periodicals	10.91
	8.	Hubbard Publishing Co., books	20.00
	13.	W. B. Clarke & Co., books	131.84
	31.	By balance of appropriation	756.66
		balance of Dean fund	6,803.24
		Mary E. Elliot fund, and interest	3,309.28
		Eliza A. Eaton fund, and interest	3,155.35
			<hr/>
			\$14,961.08

The expenditures for the incidental expenses of the library, for the year ending December 31, 1893, the bills for which have been paid by the city treasurer upon the approval of the committee on accounts of the board of trustees, the items of which may be found in the annual report of the city, are as follows :

Services of librarian	\$912.48
Services of assistants to librarian	596.75

Fuel	\$17.50
Gas	230.30
Insurance	125.00
Binding	142.77
Rebinding	153.27
Supplies	195.08
Newspapers	6.00
Water	16.00
Catalogue and card catalogue	430.03
Printing catalogue	424.73
Printing trustees' report	11.00
Incidentals	13.15
	<hr/>
	\$3,274.06

RECAPITULATION.

Balance December 31, 1893	\$3,643.83	
Appropriation for 1894	4,500.00	
	<hr/>	\$8,143.83
Paid trustees for purchase of books	\$1,000.00	
Paid incidental expenses	3,274.06	
Balance of appropriation Dec. 31, 1894	3,869.77	
	<hr/>	\$8,143.83

Respectfully submitted.

N. P. HUNT,

Treasurer of Trustees of City Library.

DECEMBER 31, 1894.

We have examined the foregoing report, and find the same correctly cast and properly vouched.

BYRON WORTHEN,

L. B. CLOUGH,

Committee on Accounts of City Library.

DECEMBER 31, 1894.

I certify that I have examined the several items of receipts and expenditures embraced in the foregoing report of the treasurer of the trustees of the city library, and find the same correctly cast and properly vouched.

JAMES E. DODGE,
City Auditor.

LIBRARIAN'S REPORT.

To the Board of Trustees of the Manchester City Library:

GENTLEMEN,—I herewith submit the forty-first annual report of the city library:

Whole number of accessions December 31, 1893 . . . 37,204

Added during the year 1894:

By purchase	747	
By gift	326	
Periodicals bound	74	
	1,147	1,147

Whole number at present 38,351

Including :

Maps	16	
Pamphlets	702	
Bound volumes	37,633	
	38,351	38,351

Number of periodicals regularly received :

By purchase	57	
By gift	17	

Number of days the library was open for reading
and distribution of books 306

Number of volumes delivered for home use . . . 55,054

Average per day 179

Largest number any one day, February 17 . . . 540

Largest number any one month, March . . . 6,618

REPORT OF THE TRUSTEES OF THE CITY LIBRARY. 475

Smallest number any one month, September	3,520
Number of volumes delivered in the reading room	9,873
Average per day	32
Number of cards used on deposit	4
Number of cards issued during the year	576
Whole number issued since new registration	9,660
Number of cards relinquished during the year	73
Postals sent to delinquents	283
Worn-out books removed from circulation	156
Number of volumes replaced	78
Number of books lost and paid for	4
Number of volumes repaired at the bindery	448
Number repaired and covered at the library	6,700
Balance of cash in hands of Mrs. Buncher, the former librarian, December 31, 1893	\$60.20
Paid by Mrs. Buncher to N. P. Hunt, treasurer, Feb- ruary 6, 1894	60.20

Amount received from Jan. 1 to Dec. 31, 1894 :

For fines	\$143.63
finding lists, 23 at 10c.	2.30
fiction catalogues, 23 at 30c.	6.90
books lost and paid for	3.34
	<hr/>
	\$156.17
Paid for expressage and incidentals	78.56
	<hr/>
Total cash on hand	\$77.61

While the circulation of books for home use shows a very slight decrease from the preceding year, it is gratifying to note that eighty-eight more cards were issued to borrowers, and that the number of books used in the library shows an increase of over sixteen hundred volumes. The statistics of this use in the library do not give us an accurate record. As we have no reference room and no quiet room for study, persons who are investigating a subject for which they need many books are invited to make

use of the tables in the book room, and are allowed free access to the shelves. Of the books consulted in this way no account can be kept, but the most valuable work of the library in aiding study and research is done in this manner.

The new and popular books of the year have been added to the library as soon as published; many books of reference, especially in the departments of bibliography, history, and genealogy have been bought; and an effort has been made to assist people connected with various clubs in the city by purchasing occasional books for which they had immediate need. The daily "Mirror" and "Union" have kindly published for us each month the lists of new books received, and these have been greatly appreciated by the people. A copy of the last list is kept upon the bulletin board at the desk, and a scrap-book containing all the lists is often consulted by those who wish to see at a glance what books have been purchased during the past few months.

Perhaps the most noteworthy achievement of the year has been the publication of the fiction catalogue,—a complete list of all English prose fiction contained in the library to December 1, 1894. The committee appointed by the trustees to consider the advisability of printing the catalogue which had been in course of preparation during the past few years, met early in the year, and decided that since the compilation proved to be not entirely satisfactory, it would be best to delay still longer the printing of a complete catalogue, and to publish as soon as possible a fiction list, which was much needed. This was prepared during the year, and was ready for the public December 27.

A new card catalogue is being gradually made. Each book in the library will be recatalogued, the new cards being inserted in the drawers and the old ones withdrawn, without causing any confusion to the consulter. When this is finished the library will possess a carefully prepared dictionary catalogue, which may be printed at any time the trustees so direct.

Simultaneously with the cataloguing another important work is being carried on,—that of classifying, or rearranging the books

upon the shelves. The placing together of books treating of the same subject is of the greatest aid to people using the library as well as to the librarian and assistants. To quote the words of Mr. Cutter: "If the library tries to supply, not merely entertainment, but instruction; if the librarian gives out, not merely books over a counter, but advice in reading and assistance in investigation, he must have his library so arranged that he can lay his hand on his materials at once. It is not enough that, with the aid of the catalogue, he can get any one book, but he must know where to go for each subject; he must (so far as possible) find there whatever the library has on that subject. And he wants to do this quickly. When inquiries are pouring in upon him he must not be obliged to waste time in searching. The quicker he can get together the books that will answer one question, the quicker he can turn to the next applicant." With the rapid growth of the library the old system of shelving has become unwieldy and inadequate to our needs. The system now being put into operation is the Cutter Expansive Classification. The books relating to one subject are shelved together, arranged alphabetically by the authors' names. The numbers given to them are permanent, and would require no change were the entire library to be moved to another building; they serve to keep the books in their proper order on the shelves; and to keep the record of the books in circulation. They admit of infinite interpolation, new books added to the library falling naturally into their places in the classes to which they belong. All English fiction has been changed to the new system, and biography is nearly finished. The assistants in the issue department find the method very helpful and time-saving. The classifying and cataloguing are being done with no withdrawal of books from circulation, and with no inconvenience to the users of the library. That this work will require two or three years for completion, can be readily understood by one who considers for a moment the magnitude of the labor involved; but that the time is well spent will be proved by the greater facilities for serving our readers with quickness and thoroughness.

Preparations are made for trying the experiment of issuing to teachers in the public schools an extra number of books for the use of the pupils. Believing it to be the function of the public library not only to provide books for those who have already a taste for reading, but also to create and nourish such taste, the library aims to begin at the fountain head by interesting the children in good books. This can best be done with the co-operation of the teachers. The plan as at present outlined is to permit the teachers in the grammar grades to take out six books at one time, to be retained one month. These will be usually of such character as to aid the teacher, supplementing the school text-books in such studies as science, geography, history, and literature. The board of education has purchased for each grammar school in the city a copy of Sargent's "Reading for the Young," an excellent classified and annotated list of books adapted to youthful readers. In each copy have been written the call-numbers of those books which are contained in the library; thus the teachers will be enabled to send for the books they wish to use without the necessity of coming to the library to consult the catalogue. If the scheme works well it may be extended to the lower grades. So great has been the success achieved in other cities where efforts have been made to bring into closer relation the public library and the public schools, that we are justified in looking for good results from our first attempts here.

In closing this record of my first year's work, I desire to express my appreciation of the ready courtesy with which the trustees have assented to the several changes I have wished to make, and to note my satisfaction in the quality of the work done by my assistants, without whose faithful and efficient service the results of the year could not have been attained.

Respectfully submitted.

KATE E. SANBORN,

Librarian.

DONATIONS TO THE CITY LIBRARY.

	Books. Pamph's
Aguilar Free Library, New York City	1
Amherst College Library	5
Ankarloo, Mrs. John P.	6
Bell, Mrs. J. J.	1
Bigelow Free Public Library, Clinton, Mass.	1
Birmingham, Eng.—Free Libraries Committee	1
Boston, Mass.—Public Library	1
Boylston, Edward D.	1
Bridgeport, Conn.—Public Library	1
Brookline, Mass.—Public Library	1
Brooklyn, N. Y.—Brooklyn Library	1
Carvelle, Dr. H. D. W.	1
Chandler, William E.	1
Chicago, Ill.—Public Library	1
Chicago, University of	1
Christophe, Miss	5
Cincinnati, Ohio.—Public Library	1
Clarke, The John B. Co.	8
Cleaves, George P.	4
Clough, Albert L.	1
Cobden Club	2
Concord, N. H.—Public Library	2
Daniels, Miss Isabelle R.	2
Detroit, Mich.—Public Library	1
Dodge, J. E., City Auditor	1
Dodge, Thomas E.	1
Dover, N. H.—Public Library	1

	Books.	Pamph's
Ewing, T.		2
Fall River, Mass.—Public Library		1
Fletcher Free Library, Burlington, Vt. . .		1
Gould, S. C.	15	1
Grand Rapids, Mich.—Public Library . . .		3
Hapgood, Warren	1	
Harvard University	2	1
Helena, Montana.—Public Library		9
Holland, Denis A.		1
Home Market Club, Boston		2
Huse, I.		2
Indian Rights Association		2
Indiana.—Department of Statistics	1	
Jones, Edwin F.	1	
Kidder, N. P., City Clerk	2	
Lawrence, Mass.—Public Library		6
Lenox Library, New York City		1
Leyton, Eng.—Public Library		1
Livermore, C. W.	13	
Lynn, Mass.—Public Library		1
Maimonides Library, New York City . . .		1
Malden, Mass.—Public Library		1
Manchester, Eng.—Public Free Libraries . .		1
Manchester, N. H.—Chief Engineer Fire Department		1
Manchester, N. H.—Mayor's Office	30	
Massachusetts.—Bureau of Statistics of Labor . .	2	
Melrose, Mass.—Public Library		1
Minneapolis, Minn.—Public Library		1
Morse Institute, Natick, Mass.		1
Nashua, N. H.	1	
Nashua, N. H.—Public Library		1
New England Conference Educational Workers .		1
New Hampshire.—Department Public Instruction	1	
“ “ Insurance Commission	2	
“ “ Railroad Commission	1	1

REPORT OF THE TRUSTEES OF THE CITY LIBRARY. 481

	Books. Pamph's	
New Hampshire.— Secretary of State	9	1
“ “ State Board of Health	1	
New Haven, Conn.— Free Public Library		2
New Jersey.— State Library	1	
Newton, Mass.— Public Library		1
Nickerson, S. D.		2
Peabody Institute, Baltimore, Md.		1
Philadelphia, Pa.— Apprentices' Library		1
“ “ Free Library		1
“ “ Friends' Library		1
“ “ Library Company		2
Providence, R. I.— Public Library		1
Pullman Palace Car Co.		1
Ramsay, Rev. W. H.	101	21
St. Louis, Mo.— Mercantile Library Association		1
Salem, Mass.— Public Library		1
San Francisco, Cal.— Mercantile Library Association		1
Scranton, Pa.— Public Library		1
Southampton, Eng.— Library Committee		1
Spofford, C. B.		3
United States.— Agricultural Department	2	355
“ “ Bureau of American Republics		5
“ “ Bureau of Education		4
“ “ Civil Service Commission	1	
“ “ Fish Commission	3	
“ “ Interior Department	134	71
“ “ Labor Department	2	
“ “ Senate		3
“ “ Smithsonian Institution	6	7
“ “ State Department		2
“ “ Treasury Department	5	3
“ “ War Department	7	7
Webster, Prentiss	1	
Woburn, Mass.— Public Library		1
Worcester, Mass.— Public Library		1

Periodicals Presented by the Publishers.

Advertiser, Manchester.
Catholic Recorder, Manchester.
Echo (High School), Manchester.
Emerald, Manchester.
Le Réveil, Manchester.
Massabesic Gem, Manchester.
Notes and Queries, Manchester.
Telegram, Manchester.
Union, Manchester.
Home Market Bulletin, Boston, Mass.
Jersey City Library Record.
Manifesto, Canterbury, N. H.
Official Gazette of the Patent Office, U. S. Government.
Plymouth Record, Plymouth, N. H.
Springfield Library Bulletin.
Travellers' Record, Hartford, Conn.
Veterans' Advocate, Concord, N. H.

ELECTRIC LIGHTS, GAS LIGHTS, ETC.

ELECTRIC LIGHTS, GAS LIGHTS, AND OIL LAMPS.

Electric Lights in Use.

No.	1. Cypress and Massabesic,	arm.
	2. Massabesic-street watering-trough,	pole.
	3. Park and Beacon,	arm.
	4. Central and Hall,	"
	5. Lake avenue and Massabesic,	"
	6. Wilson and Laurel,	"
	7. Merrimack and Hall,	"
	8. Manchester and Hall,	"
	9. Manchester and Wilson,	"
10.	Hanover and Ashland,	"
11.	Hanover and Hall,	"
12.	Hanover and Beacon,	"
13.	Concord and Ashland,	"
14.	Bridge and Hall,	"
15.	Myrtle and Russell,	"
91.	Pearl and Linden,	"
17.	Pearl and Russell,	"
18.	Bridge and Nashua,	"
19.	Nashua and High,	"
20.	Concord and Dutton,	"
21.	Amherst and Porter,	"
22.	Hanover and Lincoln,	"
23.	Manchester and Lincoln,	"
24.	Merrimack and Lincoln,	"

No.	25. Laurel and Lincoln,	arm.
	26. Central and Lincoln,	"
	27. Lake avenue and Lincoln,	"
	28. Spruce and Lincoln,	"
	29. Spruce and Maple,	"
	30. Lake avenue and Maple,	"
	31. Central and Maple,	"
	32. Merrimack and Maple,	"
	33. Manchester and Maple,	"
	34. Hanover and Maple,	"
	35. Amherst and Maple,	"
	36. Concord and Maple,	"
	37. Lowell and Nashua,	"
	38. Bridge and Maple,	"
	39. Myrtle and Maple,	"
	40. Orange and Ash,	"
	41. Harrison and Beech,	"
	42. Myrtle and Beech,	"
	43. Pearl and Beech,	"
	44. Bridge and Beech,	"
	45. Lowell and Ash,	"
	46. Amherst and Ash,	"
	47. Lowell and Beech,	"
	48. Concord and Walnut,	"
	49. Amherst and Beech,	"
	50. Hanover and Beech,	"
	51. Hanover square,	pole.
	52. Manchester and Beech,	arm.
	53. Merrimack and Beech,	"
	54. Laurel and Beech,	"
	55. Central and Beech,	"
	56. Lake avenue and Beech,	"
	57. Spruce and Beech,	"
	58. Cedar and Union,	"
	59. Lake avenue and Union,	"
	60. Central and Union,	"

No.	61. Laurel and Union,	arm.
	62. Merrimack and Union,	"
	63. Manchester and Union,	"
	64. Hanover and Union,	"
	65. Amherst and Union,	"
	66. Concord and Union,	"
	67. Lowell and Walnut,	"
	68. Lowell and Union,	"
	69. High and Union,	"
	70. Bridge and Union,	"
	71. Bridge and Walnut,	"
	72. Orange and Union,	"
	73. Prospect and Union,	"
	74. Brook and Union,	"
	75. Pennacook and Union,	"
	76. Webster and Pine,	"
	77. North and Pine,	pole.
	78. Sagamore and Pine,	arm.
	79. Blodget and Pine,	"
	80. Harrison and Hazel,	"
	81. Prospect and Pine,	"
	82. Myrtle and Pine,	"
	83. Orange and Pine,	"
	84. Pearl and Pine,	"
	85. Bridge and Pine,	"
	86. Tremont square,	pole.
	87. Pine and High,	arm.
	88. Lowell and Pine,	"
	89. Concord and Pine,	"
	90. Amherst and Pine,	"
	91. Hanover and Pine,	"
	92. Manchester and Pine,	"
	93. Merrimack and Pine,	"
	94. Laurel and Pine,	"
	95. Central and Pine,	"
	96. Lake avenue and Pine,	"

No.	97. Cedar and Pine,	arm.
	98. Auburn and Pine,	"
	99. Cedar and Chestnut,	"
	100. Park square,	pole.
	101. Lake avenue and Chestnut,	arm.
	102. Central and Chestnut,	"
	103. Merrimack square,	pole.
	104. Merrimack and Chestnut,	arm.
	105. Manchester and Chestnut,	"
	106. Hanover and Chestnut,	"
	107. Concord square, east,	pole.
	108. Concord square, west,	"
	109. Chestnut and Concord back,	arm.
	110. Chestnut and High,	"
	111. Chestnut and Bridge,	"
	112. Chestnut and Pearl,	"
	113. Chestnut and Myrtle,	"
	114. Chestnut and Harrison,	"
	115. Chestnut and Brook,	"
	116. Pennacook and Chestnut,	pole.
	117. Salmon and Chestnut,	"
	118. Webster and Chestnut,	arm.
	119. Clarke and Elm,	"
	120. Webster and Elm,	"
	121. North and Elm,	"
	122. Salmon and Elm,	"
	123. Pennacook and Elm,	"
	124. Brook and Elm,	"
	125. Harrison and Elm,	"
	126. Langdon,	pole.
	127. Dean and Elm,	arm.
	128. Prospect and Chestnut,	"
	129. Orange and Elm,	"
	130. Kidder and Elm,	"
	131. Elm east back, on Pearl,	"
	132. Bridge and Elm,	"

No. 133.	Washington and Church,	arm.
134.	Birch and Lowell,	"
135.	Lowell and Elm,	"
136.	Elm east back, between Lowell and Concord,	"
137.	Water and Elm,	"
138.	Vine and Concord,	"
139.	Vine and Amherst,	"
140.	Amherst and Elm,	"
141.	Spring and Elm west back,	"
142.	Stark,	"
143.	Market and Franklin,	"
144.	Market and Elm,	"
145.	Hanover and Elm east back,	"
146.	Elm and Manchester,	"
147.	Dean avenue and Elm west back,	"
148.	Elm and Merrimack,	"
149.	Merrimack and Franklin,	"
150.	Middle,	"
151.	Merrimack square, west,	pole.
152.	Elm and Central,	arm.
153.	Elm and Lake avenue,	"
154.	Elm and Spruce,	"
155.	Beech and Cedar,	pole.
156.	Elm and Cedar,	arm.
157.	Franklin and Granite,	"
158.	Elm and Auburn,	"
159.	Elm and Green,	"
160.	Elm and Valley,	"
161.	Bakersville watering-trough,	"
162.	Summer and State,	pole.
163.	Granite and State,	arm.
164.	Granite bridge, east,	pole.
165.	Bedford and Granite,	"
166.	Canal and Granite,	"
167.	Depot and Canal,	"
168.	Central, between Franklin and Canal,	"

No. 169.	Bedford and Central,	arm.
170.	Canal and Merrimack,	"
171.	Canal and Middle,	"
172.	Canal and Stark,	"
173.	Canal and Mechanic,	"
174.	Canal and Spring,	"
175.	Canal and Bridge,	"
176.	McGregor bridge, east,	pole.
177.	Canal and Hollis,	"
178.	Canal and Dean,	"
179.	Canal and Langdon,	arm.
180.	River road and North,	"
181.	Amoskeag bridge, east,	"
182.	Amoskeag bridge, west,	"
183.	Amoskeag watering-trough,	pole.
184.	Amoskeag brick store,	"
185.	McGregor and Main,	"
186.	McGregor and Bridge,	"
187.	McGregor bridge, west,	"
188.	Amory and Main,	"
189.	Amory and Beauport,	"
190.	Wayne and Beauport,	"
191.	Marion and Main,	"
192.	McGregor and Wayne,	"
193.	McGregor and Putnam,	arm.
194.	Sullivan and Main,	pole.
195.	Beauport and Sullivan,	"
196.	Main and Schuyler,	"
197.	Wilton and Main,	"
198.	Douglas and Main,	arm.
199.	Douglas and Barr,	"
200.	Granite and Green,	"
201.	West and Granite,	"
202.	Granite and Main,	"
203.	Granite and Second,	"
204.	Granite bridge, west,	pole.

No. 205. School and Turner,	arm.
206. School and Third,	"
207. Second and Bath,	pole.
208. Ferry and Turner,	arm.
209. Ferry and Third,	"
210. Walker and Second,	"
211. Blaine and Third,	"
212. Clinton and Main,	"
213. Walker and Main,	"
214. Parker and West,	"
215. Winter and Parker,	"
216. Main and Mast,	pole.
217. Main and Milford,	arm.
218. Main and A,	"
219. Carroll and Milford,	"
220. Old Mast road and Mast,	"
221. Hall and Amherst,	"
222. Laurel and Maple,	"
223. Central and Wilson,	"
224. Harrison and Pine,	"
225. Massabesic and Belmont,	pole.
226. Union and Appleton,	arm.
227. Elm and railroad crossing,	pole.
228. Franklin and Pleasant,	arm.
229. Elm and Appleton,	"
230. Milford and Riddle,	"
231. Nutt road and Portsmouth railroad,	pole.
232. Lake avenue and Canton,	"
233. Laurel and Hall,	arm.
234. Beech and Brook,	"
235. Kidder and Boyden,	pole.
236. Myrtle and Walnut,	arm.
237. Bridge and Linden,	"
238. Lowell and Ashland,	"
239. Lowell and Belmont,	"
240. Pearl and Union,	"

No. 241.	Salmon and Union,	pole
242.	Water,	arm.
243.	Arlington and Ashland,	"
244.	Orange and Oak,	"
245.	Prospect and Oak,	"
246.	Arlington and Russell,	"
247.	Gore and Walnut,	"
248.	Laurel and Milton,	"
249.	Massabesic — Hospital,	pole.
250.	Lake avenue and Wilson,	arm.
251.	Bridge and Ash,	"
252.	Hanover and Highland,	pole.
253.	Franklin and Depot,	arm.
254.	Spruce and Union,	"
255.	East High and Malvern,	"
256.	Beech and Auburn,	pole.
257.	Kidder and Whitney,	"
258.	Valley and Jewett,	"
259.	Concord and Derry,	"
260.	Auburn and Union,	"
261.	Harrison and Walnut,	arm.
262.	West Hancock and Second,	pole.
263.	Douglas and West,	"
264.	Hooksett road, Amoskeag,	"
265.	Prospect and Ash,	arm.
266.	Salmon and Canal,	pole.
267.	Harrison and Russell,	"
268.	Gates and Dubuque,	"
269.	Parker and Elm,	"
270.	Auburn and Maple,	"
271.	Salmon and Pine,	"
272.	Appleton and Adams,	"
273.	Clark and River road,	arm.
274.	Amoskeag eddy, south,	pole.
275.	Elm east back, between Spruce and Cedar,	"
276.	Cass and Lake avenue,	"

No. 277.	Riddle and Mast,	pole.
278.	Brown avenue and Baker,	arm.
279.	Brown avenue and Hancock,	pole.
280.	Clark and Union,	arm.
281.	Prospect and Linden,	pole.
282.	Brook and Maple,	"
283.	Brook and Hazel,	"
284.	Webster and Walnut,	"
285.	Chestnut and Ray brook,	"
286.	Webster and River road,	"
287.	Market and Canal,	arm.
288.	Concord and Beech,	"
289.	Pearl and Morrison,	pole.
290.	Concord and Hall,	arm.
291.	Merrimack and Belmont,	"
292.	Spruce and Beacon,	"
293.	Belmont and Grove,	"
294.	Bowman,	"
295.	Amory and Rimmon,	pole.
296.	Manchester and Milton,	"
297.	Valley and Pine,	"
298.	Mammoth and Candia roads,	"
299.	Cypress and Hayward,	"
300.	Conant and Rimmon,	"
301.	Cartier and Kelley,	"
302.	Monmouth and McGregor back,	"
303.	Calef road and Welch avenue,	"
304.	Valley and Taylor,	arm.
305.	Pine and Brook,	"
306.	Conant and Beauport,	"
307.	Douglas and North Weare Railroad,	pole.
308.	Orange and Hall,	"
309.	Wayne and Dubuque,	arm.
310.	Putnam and Cartier,	"
311.	Hall road and Lake avenue,	pole.
312.	Walker and Fourth,	arm.

No. 313.	Winter, near Main,	arm.
314.	Walker and Turner,	pole.
315.	Ainsworth avenue and Young street,	arm.
316.	Valley and Belmont,	"
317.	Pine and Grove,	"
318.	Blaine and Second,	"
319.	Amory and Morgan,	"
320.	Amory and Alsace,	"
321.	East High and South,	"
322.	Blaine and Main,	"
323.	Dover and Clinton,	"
324.	Elm back street on Blodget,	"
325.	B and C,	pole.
326.	Milford and Bismarck,	"
327.	Merrimack and Wilson,	arm.
328.	Pennacook and Canal,	pole.
329.	Adams and Cartier,	"
330.	Amherst and Ashland,	arm.
331.	Putnam and Bartlett,	pole.
332.	Auburn and Chestnut,	arm.
333.	Laurel avenue and Laurel,	"
334.	Hanover and Belmont,	"
335.	Lowell and Malvern,	"
336.	Adams and Wilson,	"
337.	Lincoln and Silver,	"
338.	Somerville and Jewett,	"
339.	Elm and Ray brook,	"
340.	Amory and Bartlett,	"
341.	West Hancock and Dartmouth,	"
342.	Monroe and River road,	"
343.	Marion and McGregor,	"
344.	South Main and Harvell,	"
345.	South Main and Hancock,	"
346.	Boynton,	"
347.	Mast road and Forest,	"
348.	North and Union,	"

No. 349.	Kelley and Rimmon,	arm.
350.	Coolidge avenue, near Kelley,	"
351.	Buzzell and East High,	"
352.	Mechanic and Elm back,	"
353.	Harrison and Maple,	"
354.	North and Bay,	"
355.	Front and Dunbarton,	"
356.	Orange and Linden,	"
357.	Myrtle near Belmont,	"
358.	Taylor and Young road,	"
359.	Nutt road and Auger avenue,	"
360.	Union and Grove,	"
361.	Kelley and Alsace,	"
362.	Main and Wayne,	"
363.	East Spruce and Barry avenue,	"
364.	Lowell and Hall,	"

Gas Lights in Use.

Clarke and Chestnut.
 Clarke and River road.
 Appleton, west end.
 Salmon, between Elm and Canal.
 Canal, near paper-mill.
 Blodget and Chestnut.
 Prospect, between Elm and Chestnut.
 Myrtle, between Elm and Chestnut
 Orange and Chestnut.
 Orange, between Chestnut and Elm.
 Bridge, between Chestnut and Elm.
 Pearl and Walnut.
 Orange and Walnut.
 Orange and Beech.
 Pearl and Maple.
 Arlington and Maple.
 East High and Maple.

Lowell and South.
Lowell and Jane.
Concord and Belmont.
Amherst and Belmont.
Amherst and Beacon.
Lowell and Beacon.
East High and Belmont.
Harrison and Oak.
Harrison and Ash.
Belmont and Central.
Maple and Cedar.
Willow and Merrill.
Two lights on South Elm.
Auburn and Franklin.
Three lights on State.
River, near Turner Hall.
Milford and Bowman.
Milford and B.
River and Douglas.
Mast and Bowman.
Dover and Clinton.
Dover and Granite.
Two lights on Hancock, west of River road.
Dover and Douglas.
Douglas, half way between Main and River streets.
Two lights on Pleasant between Franklin and Canal.
Two lights on Mechanic.
Spring.
Manchester and Belmont.
Hanover and Milton.
One light on River road, corner Shasta.

Oil Lights in Use.

Clarke and Adams.
Concord and Beacon.

East High and Hall.
 Pearl and Linden.
 Canal, near Amoskeag bridge.
 Merrimack and Beacon.
 Hanover and Mammoth road.
 Lake avenue and Hall road.
 Elm and Shasta.
 Elm and Baker.
 One light on Baker.
 Douglas and West.
 Douglas and Quincy.
 Granite and Quincy.
 Mast road and Riddle.
 Carroll.
 Bowman.
 A and B streets.
 Light near the Huntress gardens.
 Mammoth road and Cohas avenue.
 " " and Island Pond road.
 " " and Cilley.
 " " and Young.
 Massabesic and Hall road.
 Massabesic and Taylor.
 Belmont and Green.
 Valley and Taylor.
 Valley and Cypress.
 Cypress and Prout avenue.
 Jewett and Young.
 Young and Taylor.
 Three lights on River road, south of Blue store.
 Ten lights in Goffe's Falls.
 Three lights in Youngsville.
 One light on Candia road, near Noah Reed's.
 One light on Candia road, near Walter Cody's house.
 One light at junction of Lake avenue and Hanover.
 One light on Island Pond road, Mill-Dam House.

- One light at junction Ainsworth avenue and Young road.
- One light at junction Ainsworth avenue and Young street.
- One light on Taylor, near Byron Stearns's house.
- One light on Taylor, near Gilmore's house.
- One light on Valley, near Eastman's store.
- One light on Candia road, at P. Rogers's.
- One light on Candia road, at Dan Cronin's.
- One light on Candia road, at G. Bean's.
- One light on Candia road, at C. Francis's.
- One light on Candia road, at S. Mead's.
- One light on Candia road, at Claflin's.
- One light on Hanover, at Sam Page's.
- One light at junction of Hanover and Page.
- One light at Brown's.
- One light at junction of Hanover and Proctor.
- One light at junction of Hanover and Candia road.
- One light at junction of Proctor and Candia roads.

REPORT OF THE CITY AUDITOR.

REPORT OF CITY AUDITOR.

To the City Councils:

GENTLEMEN,—The Auditor herewith submits to your honorable body his annual report.

WORK OF THE OFFICE.

There have been made during the year the usual examinations of the treasurer's accounts, examinations of the city clerk's accounts, annual examination and settlement with the tax collector, annual examination of water-works accounts, annual examination of accounts of superintendents of Pine Grove and Valley cemeteries and of the treasurer of the cemeteries, annual examination of the accounts of the superintendent of the city farm, monthly examination of the accounts of the weigher at the city scales, quarterly examinations of the accounts of city marshal, semi-annual examination of the account of the clerk of the police court, annual examination of the accounts of the superintendent of public instruction; completed the annual examinations of accounts for the year 1893 for the late auditor, and compiled and superintended the publication of the annual report for the same year.

Six thousand four hundred six bills against the city have been examined and certified as correct. All the pay-rolls for the street and park commission, for the schools, for the fire department, the water-works, the police department, the cemeteries, and the city officials have been examined and certified to.

Twelve monthly drafts, amounting in the aggregate to \$1,329,683.19, have been drawn on the city treasury.

Accounts have been kept with all the appropriations, with the treasurer, and the tax collector.

A large number of circulars concerning the city's debt and bonds were sent to bankers and brokers, besides the general correspondence of the office, and reports, orders, and resolutions typewritten for various joint standing committees.

At the request of the joint standing committee on finance, the auditor has procured the printing of the bonds sold during the year and furnished certified copies of orders, resolutions, and laws showing the legality of the issue of said bonds to the bankers, brokers, and firms bidding for the purchase of the same.

EXPENDITURES.

The amount of the appropriation for auditor's department was	\$2,000.00
Expended for salary of auditor, James B.	
Straw	\$83.33
Expended for salary of auditor, James E.	
Dodge	927.77
Expended for salary of clerks	621.15
Expended for supplies	135.81
Balance	231.94
	<hr/> \$2,000.00

The auditor returns his thanks to Mayors Knowlton, Varney, and Worthen, the city councils, the committee on accounts, and the heads of departments for their uniform courtesy and kindness.

Respectfully submitted.

JAMES E. DODGE,

City Auditor.

REPORT OF CITY TREASURER.

	DR.
To improvement bonds	\$100,000.00
premium on improvement bonds	5,170.00

To accrued interest from June 1	\$77.78
security bonds	100,000.00
water bonds	50,000.00
premium on water bonds	2,395.00
accrued interest	22.22
temporary loan	250,000.00
premium on temporary loan	11.00
city hall, rents	2,072.50
M. J. Healy, police department	12,802.54
J. C. Bickford, police department	2,294.84
water-works, receipts	110,210.29
B. A. Stearns, Pine Grove cemetery, receipts	2,396.97
S. B. Putnam, treasurer, lots sold	3,485.01
C. H. G. Foss, Valley cemetery, receipts	1,814.64
board of paupers off the farm	3,252.70
E. G. Libbey, city farm	3,977.08
milk licenses	69.50
city scales, receipts	459.46
cemetery fund, bonds sold	5,000.00
William E. Buck, tuition	483.65
William E. Buck, free text-books sold	229.79
rent of tenements	889.52
show licenses	583.00
sewer licenses	4,120.55
town of Walpole, paupers off the farm	7.00
A. C. Wallace, Second-street bridge, overdraft	13.80
S. Levanson, peddler's license	20.00
Solomon Levenstain, peddler's license	20.00
Solon A. Carter, state treasurer, bounty on hawks, 1893	2.50
N. P. Kidder, billiard table licenses, 1893	520.00
Security Live Stock Insurance Co., loss of horse, "Stub"	100.00
Maurice Custen, peddler's license	20.00
C. R. Crossett, incidental expenses, overdraft . . . . .	.75
J. Schwartz, peddler's license	20.00

To P. Gravilon, fire department, dump-cart sold .	\$75.00
Herbert S. Clough, cost in Higgins suit . .	3.00
— Dunbar, land damage, overdraft . .	5.57
A. N. Clapp, city teams, overdraft . . .	3.75
Ralph C. Mitchell, fire department, overdraft	9.00
H. E. Loveren, attorney, labor done on Knowles property	33.37
M. Rosenblum, peddler's license	20.00
J. G. Jones, contingent expenses, overdraft .	.42
Charles S. Bailey, peddler's license . . .	20.00
S. Harrison, peddler's license	20.00
J. B. Varick, Derryfield park and commons, overdraft	36.00
Israel Saidel, peddler's license	20.00
Barrett Custen, peddler's license	20.00
M. Kortz, peddler's license	20.00
Samuel Lishtensztain, peddler's license . .	20.00
Solon A. Carter, insurance tax	2,598.75
“ “ railroad tax	28,301.40
“ “ savings bank tax	72,379.38
“ “ literary fund	7,252.97
“ “ bounty on hawks	1.50
Bernard Taffe, peddler's license	20.00
C. F. Garland, city officers' salaries, overdraft	5.00
street and park commissioners, money received from sundry persons	158.32
George E. Morrill, collector, redemption of land sold for taxes	2,541.70
N. P. Kidder, dog licenses	1,721.29
Security Live-Stock Insurance Co. . . .	200.00
George E. Morrill, interest on taxes . .	954.36
“ “ taxes for the year 1890	5.73
“ “ “ “ 1891	103.35
“ “ “ “ 1892	412.67
“ “ “ “ 1893	43,668.13
“ “ “ “ 1894	466,447.79
Total receipts	\$1,289,620.63

Cash on hand January 1, 1894	\$150,573.75
Unpaid bills January 1, 1895	45,524.40

\$1,485,718.78

CR.

By unpaid bills, January 1, 1894	\$33,798.29
January draft, 1894, No. 1	\$72,614.38
February " " 2	41,229.06
March " " 3	52,671.96
April " " 4	61,983.24
May " " 5	77,955.09
June " " 6	92,359.04
July " " 7	112,741.24
August " " 8	86,378.95
September " " 9	68,431.86
October " " 10	69,149.29
November " " 11	49,946.71
December " " 12	544,222.37

Total drafts \$1,329,683.19

Total drafts and unpaid bills \$1,363,481.48

Cash on hand January 1, 1895 122,237.30

\$1,485,718.78

SYLVANUS B. PUTNAM,
City Treasurer.

To the City Councils of the City of Manchester, N. H.:

GENTLEMEN,—I have examined the accounts of Sylvanus B. Putnam, city treasurer, for the year ending December 31, 1894, and find proper vouchers for all payments, and all receipts duly accounted for.

The net cash on hand January 1, 1894, was . . . \$116,775.46

Receipts during the year 1,289,620.63

Total \$1,406,396.09

Amount of drafts during the year . . .	\$1,329,683.19
Net cash on hand December 31, 1894 . . .	76,712.90
Total	<u>\$1,406,396.09</u>

The cash balance taken December 31, 1894, I find to be as follows :

Deposited in Suffolk National Bank . . .	\$16,675.00
Second National Bank . . .	67,593.89
National Bank of the Commonwealth	2,344.68
office safe	<u>35,623.73</u>
Gross amount of cash on hand . . .	\$122,237.30
Deduct amount of bills unpaid . . .	<u>45,524.40</u>
Net cash on hand December 31, 1894 . .	\$76,712.90

Respectfully submitted.

JAMES E. DODGE,

City Auditor.

STATEMENT OF THE RECEIPTS AND EXPENDITURES OF THE CITY OF MANCHESTER FOR THE YEAR 1894.

Receipts.

CENTRAL DEPARTMENT.

Received from :

Direct city taxes	\$510,637.67
Cost and interest on taxes . . .	1,930.82
	<u>\$512,568.49</u>
Licenses to enter sewer . . .	\$4,120.55
Licenses to keep dog . . .	1,721.29
Licenses to sell milk . . .	69.50
Licenses to keep billiard table . .	520.00

RECEIPTS AND EXPENDITURES.

5 07

Licenses to shows and exhibitions	\$583.00	
Licenses to peddle	240.00	
	<hr/>	\$7,254.34
Rents		2,962.02
		<hr/>
		\$522,784.85

STREET AND SEWER DEPARTMENT.

Received from :

City scales	\$459.46	
Miscellaneous sources	347.98	
	<hr/>	\$807.44

SCHOOL DEPARTMENT.

Received from text-books and tuition	\$713.44
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POLICE DEPARTMENT.

Received from court fines and costs	\$15,097.38
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PUBLIC PLACES.

Received from :

Pine Grove cemetery	\$5,881.98	
Valley cemetery	1,814.64	
	<hr/>	\$7,696.62

WATER-WORKS.

Gross receipts	\$110,210.29
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CHARITABLE, PATRIOTIC, AND PHILANTHROPIC.

Received from :

City farm	\$3,977.08	
Hillsborough county, boarding pau- pers and Industrial School in- mates	3,259.70	
	<hr/>	\$7,236.78

MISCELLANEOUS.

Received from :

Premium on water bonds sold	\$2,395.00	
Premium on improvement bonds sold	5,170.00	
Land redeemed from tax sale	1,565.24	
Other miscellaneous sources	411.00	
	<hr/>	\$9,541.24

Total ordinary receipts during the year 1894 \$674,088.04

TEMPORARY LOAN.

Received from loans in anticipation of tax of 1894 \$250,000.00

STATE.

Received from :

Insurance taxes	\$2,598.75	
Railroad taxes	28,301.49	
Savings bank taxes	72,379.38	
Literary fund	7,252.97	
	<hr/>	\$110,532.59

BONDED DEBT.

Received from :

Improvement bonds sold	\$100,000.00	
Water bonds sold	50,000.00	
Cemetery bonds sold	5,000.00	
Security bonds sold	100,000.00	
	<hr/>	\$255,000.00

Gross receipts \$1,289,620.63

Net cash on hand 116,775.46

\$1,406,396.09

Expenditures.

CENTRAL DEPARTMENT.

Paid interest on water bonds . . .	\$38,399.00	
interest on city bonds . . .	16,815.00	
interest on cemetery bonds . . .	1,295.83	
interest on temporary loan, an- ticipation tax, 1894 . . .	3,312.72	
	<hr/>	\$59,822.55
Paid city hall	\$2,548.84	
printing and stationery . . .	2,012.61	
incidental expenses . . .	24,065.75	
mayor's incidentals . . .	163.30	
city officers' salaries . . .	15,438.37	
city auditor's department . .	1,768.06	
sinking fund trustees . . .	5,000.00	
	<hr/>	\$50,996.93

STREET AND SEWER DEPARTMENT.

Paid street and park commission . .	\$3,783.65
repairs of highways . . .	22,435.31
incidental expenses . . .	549.82
new highways	19,892.35
land taken for highways . . .	16,430.71
watering streets	3,984.08
paving streets	5,966.02
macadamizing streets . . .	15,165.99
grading for concrete . . .	3,960.23
scavenger service	14,880.56
street sweeping	1,122.75
lighting streets	41,223.92
bridges	2,900.32
city teams	6,998.40
repairs of sewers	5,201.61
new sewers	52,970.91

Paid South Main-street bridge	\$28,450.00	
snow and ice	5,335.02	
	<hr/>	\$251,251.65

ENGINEER'S DEPARTMENT.

Paid engineer's department	\$5,016.72
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HEALTH DEPARTMENT.

Paid health department	\$3,468.93
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SCHOOL DEPARTMENT.

Paid repairs of schoolhouses	\$4,964.67	
fuel	5,224.27	
furniture and supplies	873.21	
books and stationery	55.92	
printing and advertising	312.08	
contingent expenses	1,530.40	
care of rooms	4,449.15	
evening schools	935.61	
teachers' salaries	63,151.03	
salaries school committee, clerk, truant officer	1,025.00	
salary of superintendent	2,300.00	
evening school of mechanical drawing	442.40	
free text-books	4,484.36	
manual training	1,447.54	
	<hr/>	\$91,195.64

CITY LIBRARY.

Paid city library	\$4,283.31
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FIRE DEPARTMENT.

Paid fire department	\$53,539.72	
fire-alarm telegraph	1,933.88	
hydrant service	13,925.00	
	<hr/>	\$69,398.60

POLICE DEPARTMENT.

Paid police department	\$40,200.00
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PUBLIC BUILDINGS.

Paid repairs of buildings	\$5,085.04	
ward-room, ward 5	1,622.05	
Pearl-street schoolhouse	12,666.20	
new schoolhouse, ward 9	17,002.99	
new schoolhouse, Hallsville	382.83	
addition Webster-street school- house	6,270.13	
Fulton engine-house	1,002.71	
repairs, Vine-street hook-and- ladder	445.00	
South Manchester hosehouse	4,203.24	
	<hr/>	\$48,680.19

WATER-WORKS.

Paid water-works	\$184,198.93	
water-works, sinking fund	13,925.00	
	<hr/>	\$198,123.93

PUBLIC PLACES.

Paid commons	\$3,503.46	
Stark and Derryfield parks	5,158.73	
Pine Grove cemetery	9,730.93	
Valley cemetery	2,973.02	
Amoskeag cemetery	154.24	
	<hr/>	\$21,520.38

PATRIOTIC, CHARITABLE, AND PHILANTHROPIC.

Paid paupers off the farm	\$9,866.88
city farm	8,486.35
indigent soldiers	292.00
Women's Aid and Relief Hos- pital	600.00

Paid free beds, Elliot Hospital	\$600.00	
decoration of soldiers' graves	350.00	
militia	900.00	
Sacred Heart Hospital	600.00	
	<hr/>	\$21,695.23

ABATEMENTS.

Paid abatement of taxes	\$4,918.76	
	<hr/>	
Total of ordinary municipal expenditures		\$870,572.82

TEMPORARY LOAN.

Paid loan made in anticipation of tax for 1894	\$275,000.00
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BONDED DEBT.

Paid city and water bonds	\$54,600.00
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STATE AND COUNTY TAXES.

Paid state tax	\$65,615.00	
county tax	63,895.37	
	<hr/>	\$129,510.37

Grand total, of expenditures during the year \$1,329,683.19

Cash on hand December 31, 1894	\$122,237.30	
Less unpaid bills	45,524.40	
	<hr/>	
Net cash on hand	76,712.90	
	<hr/>	\$1,406,396.09

Interest.

Appropriation	\$24,500.00	
Transferred from water-works	38,399.00	
	<hr/>	\$62,899.00

RECEIPTS.

YEAR.	January 1. Balance on hand.	Direct city taxes.	Costs and interest on taxes.	LICENSES.					Rents.	City farm.	Hillsboro' county board of pauipers and Indus- trial school inmates.	Land sold.	Premium on bonds sold.	Unclaimed bills covered into the treasury.	Judg- ments re- covered.	Land redeemed.	Miscella- neous.	Bridges.	City sales.	Fire de- partment teams.	Street de- partment teams.	T an b
				To enter sewer.	To keep dog.	To sell milk.	To keep billiard table.	For peddlers, shows, and exhibitions.														
1890.....	\$79,849.33	\$409,601.92	\$342.44	\$1,013.40	\$1,361.16	\$49.50	\$37.50	\$190.50	\$2,871.63	\$2,462.32	\$2,201.57	\$1,747.50	\$5,670.00	\$678.95	\$2,500.00		\$382.80	\$431.00	\$487.45	\$1,099.47	\$2,700.69	\$
1891.....	79,552.02	391,652.45	411.96	2,103.50	2,155.58	65.50	315.00	169.00	2,887.29	1,783.72	1,789.10	1,926.96				\$974.50	951.74	4.15	415.67	4,920.60	3,047.58	
1892.....	93,190.14	435,947.43	514.13	3,126.05	2,060.97	66.50	400.00	266.00	3,130.97	2,458.11	1,192.93	4,410.15	2,178.00		950.00		575.52		521.12			
1893.....	96,477.18	425,538.75	628.33	1,700.00	1,874.79	62.00	50.00	157.50	2,696.23	2,927.06	1,512.36		6,090.00			1,998.41	759.19		506.35			
1894.....	116,775.46	510,637.67	1,930.82	4,120.55	1,721.29	69.50	520.00	823.00	2,962.02	3,977.08	3,259.70		7,576.00			1,564.24	747.98		459.46			

EXPENDITURES.

YEAR.	INTEREST.				Printing and stationery.	Incidental ex- penses.	Mayor's incl- dentals.	City officers' salaries.	City hall.	Auditor's de- partment.	Police depart- ment.	STREET AND SEWER DEPARTMENT.														
	On water bonds.	On city bonds.	On cemetery bonds.	On tempora- ry loan.								Street and park com- mission.	Repairs of highways, snow and ice.	New highways.	Widening Elm street.	Land damages.	Sprinkling.	Paving.	Macadamiz- ing.	Grading for concrete.	Scavenger teams.	Street sweeping.	Lighting streets.	Bridges, main- tenance.	Second-street and South Main-street bridges.	City
1890..	\$34,177.00	\$15,771.00	\$567.50	\$11,820.82	\$2,058.18	\$17,380.91*	\$188.00	\$13,489.41†	\$2,741.79	.....	\$37,096.16	.....	\$21,045.45	\$9,075.61	.....	\$858.16	\$7,593.00	\$6,633.75	\$20,925.52	\$5,089.86	\$15,958.46	\$1,237.08	\$11,099.64	\$3,879.68	.....	\$5.
1891..	32,093.00	15,584.00	729.35	4,659.34	2,304.62	15,639.62	234.45	11,768.45	1,380.37	\$1,699.51	37,937.07	.....	22,850.29	14,448.09	.....	5,704.15	5,361.26	6,511.80	19,616.23	5,532.84	18,892.25	1,198.31	42,908.78	2,672.25	.....	5.
1892..	31,069.00	15,929.00	925.48	3,772.14	2,239.62	25,129.05	221.80	14,124.18	2,193.60	1,930.07	40,405.28	.....	24,647.25	24,038.08	.....	11,601.73	4,552.29	7,540.11	16,083.83	5,564.90	15,555.31	1,293.79	38,746.31	3,133.68	.....	6.
1893..	30,102.00	15,826.00	1,041.66	7,573.22	1,960.48	20,638.99	144.90	13,849.93	2,164.08	1,951.50	42,643.74	.....	25,804.30	17,149.71	\$3,274.33	16,182.41	5,338.14	9,847.87	21,265.13	6,440.90	19,000.88	1,430.76	40,517.97	4,153.73	\$52,036.06	9.
1894..	38,399.00	16,815.00	1,295.83	3,312.72	2,612.61	24,615.57	163.30	15,438.37	2,548.84	1,768.06	40,200.00	\$3,783.65	27,770.33\$	19,892.35	.....	16,430.71	3,984.08	5,966.02	15,165.99	3,960.23	14,880.56	1,122.75	41,223.92	2,900.92	28,450.44	6.

*\$60.35 taken from incidental expenses and carried to Amoskeag cemetery.

† Salaries of truant officer, committees, and superintendent taken from city officers' salaries and carried to school department.

‡ Includes construction.

\$ \$5,335.02, snow and ice.

EXPENDITURES. — CONTINUED.

YEAR.	FIRE DEPARTMENT.				PUBLIC BUILDINGS.											WATER-WORKS.		PUBLIC PLACES.						
	Fire de- partment.	Fire-alarm telegraph.	Hydrant service.	Firemen's parade.	Repairs.	New city stables.	Value-street hook-and- ladder.	Additions to Webster st. school- house.	Hallsville school- house.	Additions to city farm buildings.	Additions to Goffe's Falls school house.	Engin- eering- house and wardroom for ward h.	School- house and lot in West Man- chester.	Hose-house in South Manchester.	Pearl- street school- house.	Ward 5 wardroom.	Construc- tion, re- pairs and current expenses.	Sinking fund.	Commons.	PARKS.		Pine Grove cemetery.	Land	Valley cemetery.
																				Stark.	Derryfield.			
1890.....	\$41,409.53	\$1,585.43	\$18,080.00		\$4,443.87	\$5,994.02											\$33,403.69		\$4,214.03	\$8,060.75		\$3,017.54		\$2,789.86
1891.....	40,641.04	1,154.66	5,000.00	\$755.32	2,456.96			\$5,138.80	\$20,759.25								49,625.65		2,406.76	371.81		5,941.31		2,794.79
1892.....	42,262.88	1,269.62		441.55	2,892.75				8,845.61		\$2,000.00	\$870.00	\$2,490.00†	\$684.48			49,945.35		3,726.64	1,500.25	500.05	6,840.97	\$520.29	2,982.85
1893.....	50,135.41	1,813.25	12,750.00	500.00	5,856.74	1,163.69		2,575.00	3,796.84	\$2,598.83		21,755.23	100.00		\$8,879.05	\$725.37	166,275.82	\$12,750.00	4,538.43	4,054.28	1,152.86	7,883.15	1,000.00	3,079.50
1894.....	53,539.72	1,933.88	13,925.00		5,085.04		\$445.00	6,270.13	382.83			1,002.71	17,002.99	4,203.24	12,666.20	1,622.05	184,198.93	13,925.00	3,503.06	1,832.73	3,326.00	7,730.93	2,000.00	2,973.02

*\$60.35 taken from incidental expenses and carried to Amoskeag cemetery.

† Taken from incidental expenses.

RECEIPTS.

Miscellaneous.	Bridges.	City scales.	Fire department teams.	Street department teams.	Tuition and text books.	Court fines and costs.	Pine Grove cemetery.	Valley cemetery.	Grass receipts, water works.	Total ordinary receipts during the year, excluding cash on hand.	LOANS.		TAXES RECEIVED FROM THE STATE.					Total receipts from loans, county taxes, and state taxes.	Grand total receipts during the year, including cash on hand.
											Temporary.	Bonded.	County taxes.	Insurance tax.	Railroad tax.	Savings bank tax.	Literary fund.		
\$382.80	\$134.00	\$187.45	\$1,689.47	\$2,700.69	\$128.75	\$6,939.57	\$1,123.37	\$1,300.00	\$90,463.37	\$542,987.95	\$100,000.00	\$102,900.00	\$16,032.47	\$3,752.35	\$21,443.72	\$68,392.91	\$1,504.70	\$347,026.08	\$969,863.36
951.74	4.45	415.67	4,920.60	3,047.58	459.45	7,962.01	4,593.77	1,500.00	76,605.23	506,095.11	210,000.00	5,000.00	46,032.47	3,920.25	22,059.03	73,275.55	5,287.50	365,374.80	951,221.93
575.52		521.12			576.76	9,715.57	4,708.58	1,800.00	83,474.79	558,073.58	150,000.00		61,076.55	4,199.25	25,849.65	78,101.94	6,010.88	426,388.27	1,077,651.99
759.19		506.35			752.00	8,350.71	3,779.52	2,000.36	104,170.08	565,553.67	225,000.00	906,000.00	61,076.55	4,900.50	25,743.05	82,644.77	6,940.42	712,305.29	1,374,836.14
747.98		459.46			713.44	15,997.38	5,881.98	1,814.61	110,210.29	674,088.04	250,000.00	255,000.00		2,598.75	28,301.49	72,379.38	7,252.97	615,532.59	1,406,396.09

EXPENDITURES.

DEPARTMENT.									SCHOOL DEPARTMENT.														CITY LIBRARY.			
Mayor's office.	Street sweeping.	Lighting streets.	Bridges, maintenance.	Second street and South Main street bridges.	City teams.	Repairs of sewers and drains.	New sewers.	Sinking fund.	Engineer's department.	Health department.	Repairs of school-houses.	Fuel.	Furniture and supplies.	Books and stationery.	Printing and advertising.	Contingent expenses.	Care of rooms.	Evening schools.	Teachers' salaries.	Salaries of school committee and transient officer.	Salary of superintendent of schools.	Evening schools, mechanical drawing.	Free text-books.	Manual training.	Maintenance.	Books.
58.16	\$1,237.08	\$41,099.64	\$3,879.68		\$5,216.19	\$39,297.97			\$3,221.89	\$1,557.38	\$4,119.76	\$3,703.32	\$575.16	\$141.35	\$389.05	\$830.10	\$3,376.75	\$1,254.81	\$45,404.87	\$1,020.00	\$2,000.00	\$694.89	\$9,005.11		\$3,239.88	\$1,000.00
92.25	1,198.31	42,908.78	2,672.25		5,290.73	55,409.73			3,499.90	1,964.00	4,044.86	4,673.51	746.46	62.50	396.10	931.92	3,715.75	1,061.53	49,398.52	1,030.00	2,000.00	552.71	3,210.73		3,525.73	1,000.00
55.31	1,293.79	38,716.31	3,133.68		6,129.08	39,724.65			4,160.61	2,124.01	4,995.01	1,297.40	806.77	299.73	333.75	1,229.99	4,050.77	973.93	54,660.36	1,030.00	2,000.00	405.15	3,489.31		3,868.44	1,000.00
90.88	1,430.76	49,517.97	4,453.73	\$92,036.06	9,733.18	8,291.15	\$13,097.86	\$5,000.00	5,648.84	3,253.13	5,263.08	5,180.15	925.27	71.93	411.80	2,137.21	4,135.60	1,257.20	59,437.65	1,050.00	2,150.00	532.37	4,456.68	\$1,091.56	4,149.62	1,000.00
80.56	1,122.75	41,323.92	2,900.32	28,450.44	6,998.40	5,201.61	52,970.91	5,000.00	5,016.72	3,468.93	1,964.67	5,224.27	873.21	55.92	312.08	1,530.40	4,449.15	935.61	63,151.03	1,025.00	2,300.00	442.40	4,484.36	1,447.54	3,283.31	1,000.00

EXPENDITURES. — CONTINUED.

PUBLIC PLACES.							CHARITY, PATRIOTISM, PHILANTHROPY.												Tax abate- ments.	Total of ordi- nary municipal expenditures.	Funded debt.	Temporary loan.	State tax.	County tax.	Total of loan debt and coun- ty tax ex- penditure.	Grand total of expenditures.	Cash on hand.
PARKS.		Pine Grove cemetery.	Lamb.	Valley cemetery.	Receiving tomb.	Amsberg cemetery.	East Man- chester cemetery.	Paupers off the farm.	City farm.	Indigent soldiers.	Reception of soldiers' graves.	Mills.	Women's Aid and Hospital.	Free beds, Elliot Hospital.	Sacred Heart Hospital.	W. A. A. A. Mercy Home.											
Stark.	Berryfield.																										
\$8,060.75		\$5,017.54		\$2,789.86		\$60.35*		\$4,336.46	\$7,467.30	\$737.82	\$174.27		\$100.00	\$800.00		\$900.00	\$2,993.39	\$580,913.87	\$ 9,900.00	\$100,000.00	\$63,435.00	\$46,032.47	\$309,367.47	\$890,311.34	\$79,552.02		
371.81		5,941.31		2,791.79	\$520.00			4,928.21	6,512.89	906.40	333.54	\$875.00	400.00	600.00			2,557.24	568,164.32	100.00	180,000.00	63,435.00	46,032.47	289,567.47	858,031.79	93,190.11		
1,500.25	500.05	6,840.97	\$520.29	2,982.85	295.22	178.69	\$90.35	5,726.94	8,259.17	261.16	321.75	900.00	500.00	900.00			2,794.53	574,583.26	99,900.00	180,000.00	65,615.00	61,076.55	406,591.55	981,174.81	96,477.18		
4,054.28	1,152.86	7,883.15	1,000.00	3,079.50		502.97		7,545.63	9,023.37	246.25	342.98	900.00	600.00	600.00	\$260.00		3,145.10	865,469.13	65,400.00	200,000.00	65,615.00	61,076.55	392,091.55	1,257,560.68	116,775.46		
1,832.73	3,326.00	7,730.93	2,000.00	2,973.02		151.24		9,866.88	8,486.35	292.00	350.00	900.00	600.00	600.00	600.00		4,918.76	870,572.82	54,600.00	275,000.00	65,615.00	63,895.37	459,110.37	1,329,683.19	76,712.90		

EXPENDITURES.

Paid Brewster, Cobb & Estabrook, discount on one note, tempo- rary loan, of \$50,000, six months ten days, at $2\frac{1}{2}$ per cent	\$659.75	
R. L. Day & Co., discount on one note of \$50,000, two months, at 2 5-8 per cent . .	218.75	
A. J. Lane Co., discount on two notes of \$25,000 each, four months ten days, at $2\frac{1}{2}$ per cent	451.40	
Second National Bank, discount on one note of \$100,000, eight months three days, at 2 15-16 per cent	1,982.82	
coupons on water bonds . . .	38,399.00	
coupons on improvement bonds .	3,960.00	
coupons on city bonds . . .	11,605.00	
coupons on security bonds . .	1,250.00	
coupons on cemetery bonds . .	1,295.83	
Total expenditures . . .	\$59,822.55	
Transferred to reserved fund . .	3,076.45	
	<hr/>	\$62,899.00

Payment of Funded Debt.

Balance from old account . . .	\$4,600.00	
Amount provided by resolution, Jan- uary 26, 1894	50,000.00	
	<hr/>	\$54,600.00

EXPENDITURES.

Paid city bonds, issued Oct. 31, 1863, and payable Oct. 31, 1893 . . .	\$4,500.00
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Paid water bond, issued Jan 1, 1872,		
and payable Jan. 1, 1892	\$100.00	
city bonds, issued July 1, 1864,		
and payable July 1, 1894	50,000.00	
	<hr/>	\$54,600.00

Sinking Fund.

Appropriation	\$5,000.00
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EXPENDITURES.

Paid treasurer of sinking fund.	\$5,000.00
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Reserved Fund.

Appropriation	\$20,000.00
Premium on improvement bonds (Res-	
olution June 5, 1894)	2,370.00
Transferred from the following accounts :	
Interest	3,076.45
City hall	151.16
Mayor's incidentals	136.70
Auditor's department	231.94
Repairs of highways	70.94
Watering streets	15.92
Paving streets	33.98
Grading for concrete	39.77
Scavenger service	1,119.44
Street sweeping	77.25
Lighting streets	1,776.08
Bridges	99.68
Repairs of sewers	798.39
Health department	31.07
Fuel	275.73
Books and stationery	144.08
Printing and advertising	37.92

Contingent expenses	\$69.60	
Evening schools	264.39	
Evening school, mechanical drawing	107.60	
Free text-books	15.64	
Manual training	52.46	
Police department	200.00	
Addition Webster-street schoolhouse	152.16	
Valley cemetery	26.98	
Free cash in treasury not otherwise appropriated	38,304.97	
	<hr/>	\$69,680.30

EXPENDITURES.

By transfers to the following accounts :

Repairs Vine-street Hook-and-Ladder house	\$445.00
South Main-street bridge . .	7,975.00
Incidental expenses	11,615.57
Fulton engine house	2.71
Land taken for highways . .	8,430.71
Repairs of buildings	764.71
Addition Webster-street schoolhouse	997.29
Printing and stationery . .	12.61
City officers' salaries	2,125.01
Street and park commission . .	33.65
New highways	367.35
Macadamizing streets	165.99
City teams	698.40
Engineer's department	716.72
Repairs of schoolhouses	464.67
Furniture and supplies	173.21
Care of rooms	49.15
Teachers' salaries	151.03
Fire department	3,539.72
Fire-alarm telegraph	533.88

Schoolhouse, ward 9 . . .	\$419.79	
Pearl-street schoolhouse . .	562.05	
South Manchester hosehouse . .	203.24	
Commons	3.46	
Pine Grove cemetery . . .	730.93	
Amoskeag cemetery . . .	4.24	
Paupers off the farm . . .	2,866.88	
City farm	486.35	
Indigent soldiers	42.00	
Abatement of taxes	1,415.63	
Applied to deficit between cash and balance in appropriation for 1893	639.95	
Balance to new account . . .	23,043.40	
	<hr/>	\$69,680.30

Temporary Loan.

RECEIPTS.

Balance from old account . . .	\$25,000.00
Received from Brewster, Cobb & Estabrook, on one note of \$50,000, dated June 1, 1894, and payable December 7, 1894, at Suffolk National Bank, Boston, Mass.	50,000.00
from R. L. Day & Co., on one note of \$50,000, dated October 10, 1894, and payable December 7, 1894, at Suffolk National Bank, Boston, Mass.	50,000.00
from A. J. Lane Co., on two notes of \$25,000 each, dated August 1, 1894, and payable December 7, 1894, at Suffolk National Bank, Boston, Mass.	50,000.00

Received from Second National Bank, on one note of \$100,000, dated April 2, 1894, and payable December 2, 1894, at Second National Bank .	\$100,000.00
	<hr/> \$275,000.00

EXPENDITURES.

Paid Brewster, Cobb & Estabrook, one note of \$50,000, dated June 1, 1894, and payable December 7, 1894	\$50,000.00
R. L. Day & Co., two notes of \$25,000 each, dated August 1, 1894, and payable December 7, 1894; four notes of \$5,000 each, and five notes of \$1,000 each, all dated October 2, 1893, and pay- able December 1, 1894; and one note of \$50,000, dated October 10, 1894, and payable Decem- ber 7, 1894	125,000.00
Second National Bank, one note of \$100,000, dated April 2, 1894, and payable December 2, 1894	100,000.00
	<hr/> \$275,000.00

City Hall.

Appropriation	\$2,700.00
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EXPENDITURES.

FUEL AND LIGHTS.

Paid Manchester Electric Light Co., electric lights	\$76.80
People's Gas-Light Co., gas	260.26
The Electric Co., electric lights	89.80

Paid Union Electric Co., electric lights	\$113.50	
Paid L. B. Bodwell & Co.:		
12 tons coal	78.00	
½ cord pine slabs	3.00	
Hard wood	4.00	
25 lbs. ice daily from May 7 to Sep-		
tember 29	13.20	
Paid DeCourcy, Holland & Marshall, 1		
cord slabs	6.00	
Dunlap & Wason Coal Co., 76		
tons and 1,010 lbs. coal . . .	441.02	
	<hr/>	\$1,085.58

WATER AND TELEPHONE.

Paid New England Telephone & Tele-		
graph Co., use of telephones .	\$78.52	
Water-works, use of water to Oc-		
tober 1, 1894	634.35	
	<hr/>	\$712.87

SUNDRIES.

Paid L. M. Aldrich:		
Labor repairing lock, etc. . . .	\$2.82	
Fixing screens, etc.	11.33	
Labor on desk	2.48	
Sash cord . . . . .	.60	
Paid Dana & Provost, lumber and labor	9.62	
A. M. Eastman, soap, brooms,		
matches	4.50	
J. S. Holt, 42 gallons soap . .	5.25	
Manchester Heating & Lighting		
Co., 25 yards mop waste . . .	5.00	
Pike & Heald Co., plumbing ma-		
terial and labor	39.72	
C. H. Robie Concrete Co., patch-		
ing concrete rear city hall .	.50	

Paid Mary Shiney, labor cleaning of-	
fices	\$11.20
Ann Fox, labor cleaning offices .	60.00
Mary Higgins, labor cleaning of-	
fices	44.20
W. P. Goodman, 1 quart ink .	.65
Peter Harris, keys	3.50
India Alkali Works, 2 kegs Savo-	
gran	8.45

Paid T. A. Lane Co.:

Electric supplies, shades, holders, etc.,	
mayor's office	10.35
Electric supplies, shades, holders, etc.,	
engineer's department	30.18
Electric supplies, shade, holder, etc.,	
messenger's office	5.30
Electric supplies, shade, holder, etc.,	
city clerk's office	5.20
Electric fan, etc.	26.08
Labor wiring boiler room	12.83
Rubber hose, self-closing bibb, and	
labor putting on same	7.65
Hose bands, splicers, globes, wax	
tapers, etc.	2.83

Paid John B. Varick Co.:

Floor brush, rope, sponges, potash,	
soap	6.16
Wire, twine, ostrich dusters	4.10
Carpet sweeper, clothes line, wire,	
rings, etc.	3.53
1 water cooler	6.00
Keys . . . . .	.90

Paid James R. Carr & Co., 7 lights of

glass, and setting same	1.60
Lovejoy & Stratton, 1 clock	5.00

Paid Mrs. John A. Barker, making 3 awnings	\$24.00
Sanborn Carriage Co., mending fire rake . . . . .	.15
James P. Finn, labor and paint	1.63
A. Render & Co., cleansing carpets, auditor's, street commission, superintendent schools, and mayor's offices, 216 yards at 8c.	17.28
The Kitchen, mops, mop waste, mirror, etc.	3.35
Paid Weston & Hill Co.:	
Soap and crash	1.78
3 awnings, auditor's office	14.55
3 awnings, mayor's office	14.55
Paid C. H. Wood, painting 1 water-tank	1.00
J. G. Jones, 2 barrels sawdust . . . . .	.65
D. A. Simons, 3 chair seats	1.25
The John B. Clarke Co., printing 2 placards . . . . .	.30
I. L. Stickney, rubber tubing, enamel cloth, etc.	1.87
John H. Cole, services as city messenger two weeks	24.00
Union Oil Co., 1 gallon naphtholeum	1.50
J. J. Holland, borax . . . . .	.25
Garrett W. Cotter, labor on water-pipe	78.49
J. Hodge, lumber and labor . . . . .	.50
Clark M. Bailey, toilet paper	4.50
W. M. Darrah & Co., repairing slate roof	40.27
Paid Head & Dowst Co.:	
Labor and material changing windows in assessors' office	50.55

Labor and material on drug-store, 1892	\$130.44	
	<u> </u>	\$750.39
Total expenditures		\$2,548.84
Transferred to reserved fund		<u>151.16</u>
		\$2,700.00

Printing and Stationery.

Appropriation	\$2,000.00	
Transferred from reserved fund	<u>12.61</u>	\$2,012.61

EXPENDITURES.

ASSESSORS.

Paid Temple & Farrington Co.:		
12 rubber penholders	\$2.00	
1/2 ream letter paper	1.75	
Ink, paper, pens, erasers	4.68	
27 blank books	100.00	
Other stationery	14.23	
Paid The John B. Clarke Co., advertising		
notice, 1 1/2 inches, 10 times	9.25	
Union Publishing Co., advertising		
assessors' notice, 1 3/4 inches, 11		
times	<u>9.85</u>	\$141.76

TAX COLLECTOR.

Paid Novelty Advertising Co., rubber		
stamp pad and ink	\$0.90	
Temple & Farrington Co., blank		
books, etc.	6.84	
Paid The John B. Clarke Co.:		
Advertising tax sale, 62 lines, 3 times	39.33	

Printing 4,000 receipts . . .	\$5.00	
5,000 half-note heads . . .	8.50	
25,000 blank bills . . .	25.00	
Paid Republican Press Association, adver-		
tising tax list, 5 inches, 3 times .	7.50	
Manchester post-office, 1,500 2-cent		
envelopes	33.00	
	<hr/>	\$126.07

CITY CLERK.

Paid Temple & Farrington Co.:		
Blank book and canvas cover . . .	\$13.10	
Rubber bands, blank books . . .	33.75	
Paper, envelopes, pens, etc. . . .	11.93	
Leather and canvas covers	3.25	
Paid T. Lyle, 4 boxes stub pens . . .	3.00	
Paid J. Arthur Williams:		
Printing 100 hackney carriage licenses	1.75	
1,000 marriage certificates . . .	6.50	
2,800 burial permits	9.90	
640 postals	8.40	
1,000 dog licenses	6.50	
300 ordinance blanks	4.25	
300 rosters	19.50	
2,000 return of death blanks . . .	5.75	
500 notices of hearing	3.00	
300 2-cent envelopes	7.50	
1,000 blanks	9.50	
1,000 letter heads, receipts, etc.	6.25	
	<hr/>	\$153.83

CITY TREASURER.

Paid Temple & Farrington Co.:		
86 police pay-rolls, No. 4373 . . .	\$9.50	
Blank books and covers	21.00	
Stationery	1.60	
Paid J. Arthur Williams, printing 200		
pay-roll blanks	2.25	
	<hr/>	\$34.35

CITY AUDITOR.

Paid The John B. Clarke Co.:

Printing 800 billheads	\$9.00
400 statements of bonded debt	9.60
200 blanks	6.00
1,000 slips	1.50
1,000 annual reports	1,244.94
Binding 150 annual reports, full sheep	150.00
50 annual reports lettered	5.00
100 annual reports stamped with seal	1.00

 \$1,427.04

CITY ENGINEER.

Paid W. E. Moore, printing sewer regulations

\$5.75

Paid Frank H. Challis:

Printing 1,000 blanks	6.85
400 card records	4.25

 \$16.85

CITY COUNCIL AND COMMITTEES.

Paid The John B. Clarke Co.:

Publishing ordinances	\$40.30
Printing 25 briefs	8.00
150 certificates of lots	4.00

Paid Union Publishing Co., publishing ordinances

29.14

Paid Thomas H. Tuson:

Printing 500 blanks	2.30
Printing 500 notices	2.30

Paid W. E. Moore:

Printing 75 cards	2.00
Printing 1,000 circulars	3.00

Paid Temple & Farrington Co., blank books, pens, paper, mucilage, etc.

 3.37

\$94.41

SUNDRIES.

Paid Frank H. Challis :

Printing 300 4-page circulars . . .	\$3.50
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Printing 5,000 receipts . . .	6.00
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Paid The John B. Clarke Co., 2 1/2 lbs. paper20
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W. P. Goodman, 1 box McGill's fasteners20
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Hopkins & Holbrook, printing 1,000 letter headings	2.00
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W. E. Moore, printing 1,000 letter headings	6.00
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Temple & Farrington Co., 8 sheets carbon paper40
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 \$18.30

Total expenditures	\$2,012.61
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Incidental Expenses.

Appropriation	\$12,000.00
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Transferred from reserved fund . . .	11,615.57
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Transferred from appropriation for Lin-

coln school curbing	1,000.00
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 \$24,615.57

EXPENDITURES.

LABOR.

Paid labor of men and teams, as per pay-rolls, in division No. 2 :

January	\$30.00
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February	26.00
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March	24.00
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April	24.00
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May	30.00
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INCIDENTAL EXPENSES.

525

June	\$24.00
July	102.00
August	76 50
September	64.38
October	74.19
November	50.75
December	24.00

\$549.82

VACCINATION.

Paid H. J. Achard	\$25.90
J. L. Burnham	62.30
I. L. Carpenter	22.40
E. Fortier	541.10
E. N. Fugere	440.65
P. G. Laberge	133.70
J. E. A. Lanouette	535.50
W. H. Lyons	22.05
Frederick Perkins	344.75
Gillis Stark	9.45
C. F. Starr	273.00

\$2,410.80

BIRTHS, MARRIAGES, AND DEATHS.

Paid O. D. Abbott	\$9.25
H. J. Achard	18.25
D. S. Adams	6.75
N. A. Avery	2.50
A. A. E. Brien	12.25
E. Bernier	1.50
John L. Burnham	9.00
L. D. Bragg	1.25
J. A. Chevalier	21.00
N. L. Colby	11.00
C. R. Crossett	1.50
Mary S. Danforth	7.00

Paid C. E. Dodge	\$12.00
C. M. Dodge	3.75
C. W. Downing	6.00
E. B. Dunbar	7.00
J. E. Emerson	18.75
John Ferguson	37.00
George Frechette	21.75
L. M. French	10.50
E. N. Fugere	38.00
Charles F. Flanders	41.00
J. E. Fortier	41.25
F. M. Garland	2.75
C. D. Hills	12.00
C. Houle	1.50
J. A. Jackson	18.00
N. P. Kidder	583.15
M. E. Kean	14.50
A. Lessard	11.75
J. J. Lyons	11.25
P. G. Laberge	23.75
J. E. Lemaitre	12.50
J. D. Lemay	20.25
J. E. A. Lanouette	27.75
W. C. McAllester	5.25
J. W. D. McDonald	8.00
Jacob W. Mooar	1.00
Frederick Perkins	15.00
J. F. Robinson	8.50
J. E. E. Roy	5.50
W. H. Ramsay	2.50
C. B. Sturtevant	9.25
E. Sylvain	22.75
C. F. Starr	3.00
Z. L. Straw	3.00
A. G. Straw	3.25
F. C. Stockle	7.25

Paid R. S. True	\$5.75	
Thomas Wheat	2.25	
Florian Widman	2.00	
N. G. Johnson	3.25	
	<hr/>	\$1,184.90

DAMAGES AND JUDGMENTS.

Paid Ellen M. Canney, executrix, on execution, personal damages, H. C. Canney	\$4,900.00
Curtis A. Chamberlain, damage to chickens by dogs	12.00
Loren E. Charles, settlement of claim for damages to milk wagon	37.50
James T. Donahoe, settlement of suit	79.55
Samuel W. Dunbar, settlement of suit for trespass to real estate	47.44
Michael Heaney, settlement of suit	20.95
Mary J. James, settlement of suit, widening Manchester street	450.17
Frank Moreau, injury to person on Amoskeag bridge	125.00
Paid Frederick Perkins :	
Reducing compound fracture of leg and subsequent dressings, Abraham Parent	72.00
Dressings by Dr. C. F. Starr	48.00
Paid Abraham Parent, settlement for damage, injury to person on Bald Hill road	85.00
Tom W. Robinson, damages for death of horse, killed by falling off embankment on "Eddy" road	110.00
Joseph Simard, personal injuries, falling on McGregor bridge	225.00

Paid J. Shea, damages to sleigh . . .	\$21.00	
Janet B. White, personal damages, falling on sidewalk on South Main street	2,200.00	
Rufus Wilkinson, damage to sleigh, harness, etc.	25.75	
	<hr/>	\$8,459.36

LEGAL EXPENSES.

Paid O. E. Branch :

Costs agreed upon in action <i>Currin v.</i> <i>Manchester</i>	\$35.00
Services, Kennard <i>v.</i> Assessors . . .	100.00

Paid Burnham, Brown & Warren, costs
agreed upon in action of *Bodwell v.*

City	35.00
Charles E. Cochran, services Cham- berlain <i>v.</i> City	15.00
A. S. Campbell & Co., printing brief, Attorney General <i>v.</i> Mayor	9.00
The John B. Clarke Co., printing 25 briefs, Kennard <i>v.</i> City . . .	3.50

Paid C. B. Hildreth :

Services investigating Dr. Canney case	15.00
Services investigating sawdust case, Auburn	20.00

Paid Herrick, Brown & Ramsdell, ser-
vices in case of Woodman and six
others *v.* City

T. J. Howard, services in claim of Parent <i>v.</i> City	73.20
	10.00

Paid Edwin F. Jones :

Expenses attending supreme court, Portsmouth and Exeter	8.60
<i>Quo warranto</i> cases, etc.	35.02

Paid John Kennard, costs in suit for abatement of taxes	41.11
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Paid Thomas D. Luce, certifying Horan appeal	\$0.50	
Paid Arthur W. Morgan :		
Cash paid witnesses and for team for solicitor	3.37	
Services looking up witnesses, Koehler <i>v. City</i>	5.00	
Cash paid witnesses and summoning same, Chamberland <i>v. Manchester</i> .	10.36	
Services summoning witnesses . . .	6.43	
Paid F. T. E. Richardson, summoning witnesses and fees, case <i>J. A. Neal v. City</i>	1.74	
	<hr/>	\$427.83

CITY COUNCIL AND COMMITTEES.

Paid American Bank Note Co., printing 100 \$1,000 improvement bonds .	\$75.00	
George W. Bailey, hacks	33.75	
C. W. Babbitt & Co., hacks	10.00	
Boyd Brothers, hack	5.00	
Boston Bank Note & Lithographing Co., printing 50 bonds	80.00	
John A. Barker, cash paid for car-fares	3.65	
Frank Chenette, 2 barouches . . .	10.00	
Paid The John B. Clarke Co. :		
Publishing dog licenses, 2½ inches, 6 weeks	30.00	
Advertising proposals for school building	11.25	
Paid James E. Dodge :		
Expenses to Boston to negotiate for and deliver bonds	6.10	
Expenses to and at Boston, with city seal, putting same on improvement bonds	2.65	

Expenses of self and mayor to Boston making contract to print water bonds	\$5.95	
Paid W. J. Freeman, hacks	197.50	
E. T. James, hacks	19.00	
Kean & Doyle, hacks	100.00	
J. C. Nichols & Son, hacks	20.00	
Paid S. B. Putnam :		
Expenses to Boston to deliver improvement bonds	3.10	
Expenses to Boston twice to deliver bonds and notes	7.10	
Paid C. H. Simpson, hacks	97.00	
A. W. & E. Spanhoofd, printing dog licenses	3.00	
Paid Union Publishing Co. :		
Publishing dog licenses, 2½ inches, 36 times	43.50	
Publishing proposals for fuel, 2½ inches, 7 times	9.20	
Publishing proposals for school building	16.91	
Paid George E. Wheeler, hacks	30.00	
Paid Byron Worthen :		
Expenses to Boston	2.60	
Cash paid for express . . . . .	.35	
Paid Western Union Telegraph Co., telegrams	1.97	
Whitten & Fifield, use of team	3.00	
	<hr/>	\$827.58

CITY LIBRARY.

Paid John A. Barker, care of boiler, etc.	\$127.00	
Henry E. Shea, work done in and around building	18.75	
	<hr/>	\$145.75

CITY SCALES.

Paid A. T. Barr, testing weights, measures, etc.	\$3.80	
Paid L. B. Bodwell & Co. :		
½ ton stove coal	3.50	
3,005 pounds stove coal	9.02	
	<hr/>	\$16.32

MILK INSPECTOR.

Paid The John B. Clarke Co., advertising notice 2 inches 2 times	\$4.50	
Paid H. F. W. Little, cash paid for :		
Postage . . . . .	.54	
1 lactoscope	3.50	
Acids, rings, jars, etc. . . . .	.80	
	<hr/>	\$9.34

RELATING TO STREETS.

Paid W. B. Abbott, painting and lettering 635 street signs at 16c	\$101.60	
Sargent & Marden, 60 maple trees	60.00	
D. C. Whittemore, right of way from April 1, 1893, to April 1, 1894	20.00	
	<hr/>	\$181.60

MAYOR.

Paid R. Bechard :		
Printing letter heads	\$3.75	
Envelopes and printing	2.75	
Paid Bessie P. Conner, services as clerk	303.00	
Paid Daniels & Downs :		
1 Bar-Lock typewriter	100.00	
1 roll-top desk	50.00	
1 typewriter ribbon . . . . .	.75	
Paid W. P. Goodman :		
1 diary . . . . .	.65	

Typewriter paper, etc.	\$0.95	
1 Webster's Unabridged Dictionary, indexed	10.50	
Paid Chas. A. Hoitt & Co.:		
1 office chair	6.00	
1 No. 2 oak desk	45.00	
Paid E. J. Knowlton, postmaster, 1,525 2-cent stamped envelopes	34.58	
Manchester Postoffice, 250 2-cent stamps	5.00	
E. E. Sealer Co., 1 sealer . . . . .	.50	
Weston & Hill Co., 1¼ yds. carpet . . . . .	.81	
George P. Wallace, 1 ream No. 1 wove paper . . . . .	.80	
Paid Temple & Farrington Co.:		
1 bottle paste . . . . .	.25	
250 envelopes	1.37	
Paid John B. Varick Co., 2 key rings . . . . .	.15	
Ella Barker, services as typewriter	7.50	
	<hr/>	\$574.31

ASSESSORS.

Paid H. D. Lord, transfers of real estate one year, to April 1, 1894	\$12.00	
B. W. Robinson, horse-hire deliver- ing inventory blanks	2.00	
	<hr/>	\$14.00

TAX COLLECTOR.

Paid John H. Colburn, James O. Web- ster's tax sold and refunded	\$10.82	
A. B. Campbell, 2 fountain ink stop- pers . . . . .	.60	
E. R. Coburn Co., 1 frame	1.60	
Paid Daniels & Downs:		
Typewriting list of tax sale	3.50	

INCIDENTAL EXPENSES.

533

5 ink erasers	\$0.25	
Paid Peter Harris, grinding shears . . .	.10	
Chas. A. Hoitt & Co., repairing chair . . . . .	.50	
J. A. Jackson, Mary Burke's and Wm. Currier's tax sold and re- funded	30.41	
Paid George E. Morrill .		
Taxes of 1893 sold May 2, 1894, and purchased by city	5,942.74	
Distributing tax notices, 1894 . . .	87.63	
Paid Manchester Hardware Co., ball twine	.10	
Francis Pratt, Jr., pens	3.00	
F. H. Thurston, soap and sponges .	.50	
	<hr/>	\$6,081.75

CITY CLERK.

Paid Florence M. Kidder, services as clerk	\$384.00	
J. Arthur Williams, printing 1,500 blanks	4.50	
	<hr/>	\$388.50

CITY TREASURER.

Paid L. M. Aldrich, repairing chair .	\$0.75	
Blanche E. Bullock, services as clerk	432.00	
A. A. & E. W. Bunton, cane-seating office chair	1.00	
E. R. Coburn Co., 1 quart ink . . .	.65	
T. Lyons, 4 gross pens	5.50	
Lyons & Patterson, pens	3.00	
Manchester Hardware Co., sponges	.30	
Francis Pratt, Jr., 2 gross pens and penholders	4.00	
Paid Temple & Farrington Co.:		
20 M pay envelopes	15.00	
2 gross rubber bands . . . . .	.60	

49 blank books	\$24.25	
Canvas cover	1.00	
Other stationery	5.50	
Paid John B. Varick Co., toilet paper .	.50	
Western Union Telegraph Co., tele- gram, Boston, bond business .	.29	
	<hr/>	\$494.34

COURT HOUSE.

Paid DeCourcy, Holland & Marshall, 31,- 365 lbs. egg coal	\$101.94	
Paid county of Hillsborough:		
One half expense running boiler to January 20, 1894	24.00	
One half expense of coal, 78.1 tons .	234.77	
Paid Manchester Hardware Co., 1 16- inch lawn mower	5.50	
Pike & Heald Co., 1 ash hod .	3.00	
Timothy P. Shea, services as janitor	479.27	
Paid John B. Varick Co.:		
Brooms, sponges, mops, pails, dustpan, etc.	11.87	
200 lbs. Coe's fertilizer	3.50	
Lawn rake, rubber hose	5.40	
	<hr/>	\$869.25

ELECTION EXPENSES.

Paid Daniel G. Andrews:	
Labor and supplies for wardroom No. 2	\$9.70
1 table, damaged	1.00
Paid George W. Bailey, use of hack .	10.00
Aretas Blood, use of Mechanics hall	100.00
Edward P. Cogswell, carting sawdust	1.50
Frank H. Challis, printing 250 blanks	4.25

Paid The John B. Clarke Co.:	
Printing 632 check-lists	\$314.95
30 additional check-lists	27.50
Paid George H. Dudley, 2 days' labor,	
ward 2	5.00
Dunlap & Wason Coal Co., 1 ton egg	
coal, ward 5	5.75
M. Dana, removal and storing ward	
3 voting booths	2.50
Flint & Little, 2 desk tops for check-	
lists	2.15
S. C. Forsaith Machine Co., 10 bar-	
rels sawdust, wards 2 and 5	1.45
Peter Harris, repairing ballot-box	1.00
The Head & Dowst Co., material	
and labor in different wards	40.26
C. F. Jack, cleaning Blodget-street	
schoolhouse after election	2.00
Pike & Heald Co., use of stove,	
ward 5	2.00
People's Gas-Light Co., gas, ward	
5 wardroom	5.04
Thomas Stewart, trucking tables,	
chairs, and voting apparatus from	
West Manchester to ward 5 ward-	
room and return	1.50
Paid Temple & Farrington Co.:	
25 sheets linen folio . . . . .	.50
Pencils	7.04
Paid Charles H. Simpson, hacks	10.00
Paid J. Arthur Williams:	
Printing 125 ballot inspector certificates	1.75
100 supervisor certificates	1.50
Paid York Market Co., oil, oil-can, chim-	
neys, etc., ward 4	1.22

 \$559.56

SUNDRIES.

Paid George W. Bailey :	
Storage and care of ambulance . . .	\$6.00
Use of horse and driver	7.00
Use of team	1.00
Paid Concord & Montreal R. R., tickets	
to Concord and Boston . . .	4.11
Anne Fox, 98 $\frac{1}{4}$ hours cleaning offices	19.65
George Holbrook, clearing snow off roof of city hall and library .	39.50
Dana W. King, examining records and certifying deed	5.72
David Lamprey, bounty on hawk .	.25
Frank Roby, bounty on 5 hawks .	1.25
Saturday Telegram Co., postage stamps	100.00
C. H. Simpson, use of hack to Elliot Hospital	2.50
American Express Co., express on city reports	5.07
town of Goffstown, taxes on gravel lot	1.38
H. W. Herrick, portrait of ex-Mayor Knowlton	8.00
J. G. Jones, delivering city reports	.50
Charles F. Lambert, 3 lambs killed by dogs	15.00
First Light Battery, powder, etc., and firing national salute July 4, 1894	42.00
Paid Nate Kellogg :	
Printing 500 blank bills	6.75
106 letter circulars	3.75
Reprinting bond statements . . .	1.75
Paid W. E. Moore, postal cards and print- ing	
	2.00

Paid C. T. & R. D. McFarland, for plans and specifications for new school- house, in full for all plans, advice, and services for work against the city to Oct. 1, 1894, in accord- ance with resolution passed by city councils Oct. 2, 1894 . . .	\$600.00
Manchester City Band, 3 concerts . .	150.00
Concord Foundry Co., 1 drinking fountain	95.00
First Regiment Band, concerts . .	150.00
Manchester Water-works, use of water, ward 5 wardroom	2.63
Paid A. J. Lane Co.:	
Drawing bonds	3.00
Services securing options of land of Briggs, Rowe, and Eastman . . .	50.00
Paid Henry C. Dickey, work on pipes at hosehouse	1.75
Sampson, Murdock & Co., 25 direc- tories	50.00
Union Manufacturing Co., 1,000 house numbers	45.00
	<hr/>
	\$1,420.56
Total expenditures	<hr/> \$24,615.57

Mayor's Incidentals.

Appropriation	\$300.00
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EXPENDITURES.

Paid W. J. Freeman, horse hire . . .	\$12.50
E. J. Knowlton, allowance for hire of teams, to May 10 inclusive . .	48.00
E. H. Stowe, 16 dinners, and horses fed	12.00

Paid Hotel Windsor, board, Mayor Knowlton and party (visiting firemen)	\$4.50	
Paid Byron Worthen :		
Cash paid for expenses to Providence .	20.60	
Dinners at Mill-Dam house, board of aldermen	16.70	
Firemen's dinners	34.00	
Cash paid for teams	15.00	
	<hr/>	
Total expenditures		\$163.30
Transferred to reserved fund		136.70
		<hr/>
		\$300.00

City Officers' Salaries.

Appropriation	\$16,700.00	
Transferred from reserved fund	2,125.01	
	<hr/>	\$18,825.01

EXPENDITURES.

CENTRAL DEPARTMENT.

Paid E. J. Knowlton, Mayor	\$650.00	
David B. Varney, mayor	300.00	
Byron Worthen, mayor	850.00	
Nathan P. Kidder, city clerk	900.00	
Sylvanus B. Putnam, city treasurer .	1,200.00	
Edwin F. Jones, city solicitor	800.00	
George L. Stearns, clerk common council	200.00	
Thomas W. Lane, inspector of buildings	100.00	
H. F. W. Little, milk inspector	300.00	
William Bailey, city weigher	400.00	
John A. Barker, city messenger	700.00	
	<hr/>	\$6,400.00

CITY OFFICERS' SALARIES.

539

CITY PHYSICIAN AND OVERSEERS OF THE POOR.

Paid Frederick Perkins, city physician .	\$200.00	
William H. Maxwell, ward 1 . . .	25.00	
Thomas L. Quimby, ward 2 . . .	25.00	
Benjamin F. Garland, ward 3 . . .	25.00	
George S. Holmes, ward 4 . . .	25.00	
Patrick Costello, ward 5 . . .	25.00	
Charles Francis, ward 6 . . .	25.00	
William Marshall, ward 7 . . .	25.00	
Charles S. McKean, ward 8 . . .	25.00	
Frank I. Lessard, ward 9 . . .	25.00	
Paid Edgar J. Knowlton :		
Chairman <i>ex officio</i> , overseers poor, 1893	25.00	
To May 10, 1894	8.32	
Paid David B. Varney, chairman <i>ex officio</i> ,		
overseers poor, to July 10, 1894 .	4.86	
Byron Worthen, chairman <i>ex officio</i> ,		
overseers poor, balance of year .	11.82	
William H. Maxwell, clerk of board	100.00	
Judith Sherer, matron of pest-house	360.00	
	<hr/>	\$935.00

SCHOOL OFFICERS AND BOARD OF SCHOOL COMMITTEE.

Paid William E. Buck, superintendent of		
schools	\$2,300.00	
Samuel Brooks, truant officer . . .	375.00	
Curtis W. Davis, truant officer . .	250.00	
E. J. Knowlton, chairman <i>ex officio</i>	3.32	
David B. Varney, chairman <i>ex offi-</i>		
<i>cio</i>	1.68	
Byron Worthen, chairman <i>ex officio</i>	5.00	
Paid Edward B. Woodbury :		
Clerk of board, balance salary, 1893 .	50.00	
Salary, 1894	150.00	
Paid Fred T. Dunlap, president common		
council, <i>ex officio</i>	10.00	

Paid Charles D. Sumner, ward 1	.	.	\$10.00
Walter H. Lewis, ward 1	.	.	10.00
George H. Stearns, ward 2	.	.	10.00
Alvin T. Thoits, ward 2	.	.	10.00
George D. Towne, ward 3	.	.	10.00
Louis E. Phelps, ward 3	.	.	10.00
Stephen B. Stearns, ward 4	.	.	10.00
Edwin L. Richardson, ward 4	.	.	5.00
John W. Mears, ward 4	.	.	5.00
James P. Slattey, ward 5	.	.	10.00
William J. Sughrue, ward 5	.	.	10.00
Frank T. E. Richardson, ward 6	.	.	10.00
George W. Dearborn, ward 6	.	.	10.00
Marshall P. Hall, ward 7	.	.	10.00
Edward B. Woodbury, ward 7	.	.	10.00
Luther C. Baldwin, ward 8	.	.	10.00
Josiah G. Dearborn, ward 8	.	.	10.00
Edward J. Doherty, ward 9	.	.	10.00
Scott E. Sanborn, ward 9	.	.	10.00
			<hr/>
			\$3,325.00

BOARD OF ASSESSORS.

Paid Henry Lewis, ward 1	.	.	\$150.00
John E. Stearns, ward 2	.	.	165.00
David O. Fernald, ward 3	.	.	822.50
Harrison D. Lord, ward 4	.	.	225.63
George F. Sheehan, ward 5	.	.	142.50
George H. Dudley, ward 6	.	.	465.00
William T. Rowell, ward 7	.	.	152.50
Frank N. Daniels, ward 8	.	.	95.00
Lawrence F. Bradley, ward 9	.	.	162.50
E. W. Brigham, assistant	.	.	295.00
Harvey L. Currier, assistant	.	.	227.50
John Cayzer, assistant	.	.	70.00
Hiram Forsaith, assistant	.	.	72.50
N. Nichols, assistant	.	.	300.00

Paid Henry F. Stone, assistant . . .	\$70.00	
Isaac Whittemore, assistant . . .	86.25	
J. H. Collette, interpreter . . .	17.50	
Louis Comeau, interpreter . . .	65.50	
A. G. Monette, interpreter . . .	25.00	
Jean B. Rejimbail, interpreter . . .	40.00	
H. D. Lord, clerical services . . .	22.50	
	<hr/>	\$3,672.38

TAX COLLECTOR.

Paid George E. Morrill :

Salary, quarter ending February 28,		
1894	\$200.00	
Salary, quarter ending May 31, 1894 . . .	200.00	
Salary, balance due for 1893-94 . . .	850.00	
Commission on old taxes	29.85	
Salary, quarter ending August 31, 1894 . . .	200.00	
Salary, quarter ending November 30,		
1894	200.00	
	<hr/>	\$1,679.85

MODERATORS, 1893 AND 1894.

Paid Abial W. Eastman, ward 1 . . .	\$15.00	
William M. Butterfield, ward 2 . . .	15.00	
Charles L. Harmon, ward 3 . . .	23.00	
George H. Warren, ward 4 . . .	15.00	
Emmett Duffee, ward 5 . . .	17.50	
Herbert S. Clough, ward 6 . . .	25.00	
Frank A. Dockham, ward 7 . . .	15.00	
Charles G. Ranno, ward 8 . . .	12.50	
John T. Hannigan, ward 9 . . .	17.50	
	<hr/>	\$155.50

WARD CLERKS, 1893 AND 1894.

Paid Frank X. Foster, ward 1 . . .	\$26.00
Wilson F. Higgins, ward 2 . . .	25.00

Paid Frank O. Moulton, ward 3 . . .	\$25.00	
George H. Phinney, ward 4 . . .	25.00	
John A. Whalen, ward 5 . . .	28.50	
Harry I. Dodge, ward 6 . . .	36.00	
Charles E. Bartlett, ward 7 . . .	26.00	
Maurice Lamprey, ward 8 . . .	23.50	
Jean B. B. Beliveau, ward 9 . . .	28.50	
Alfred Eaton, ward 3, special elec- tion	5.00	
	<hr/>	\$248.50

INSPECTORS OF CHECK-LIST, 1893 AND 1894.

Paid George C. Kemp, ward 1, 41½ days	\$93.37	
Charles B. Tucker, ward 2, 49½ days	111.38	
David O. Fernald, ward 3, 35 days	78.75	
Harrison D. Lord, ward 4, 60 days	135.00	
John F. Quinn, ward 5, 44 days .	99.00	
Albert J. Peaslee, ward 6, 46 days .	103.50	
Joseph A. Foster, ward 7, 38½ days	86.63	
Charles C. Tinkham, ward 8, 62 days	139.50	
John B. Bourque, ward 9, 45 days .	101.25	
Samuel J. Lord, assistant, 12 days .	27.00	
Isaac Whittemore, assistant, 28 days	63.00	
George H. Dudley, assistant, 20 days	45.00	
Albert J. Peaslee, use of team .	8.75	
	<hr/>	\$1,092.13

SELECTMEN, 1893 AND 1894.

Paid J. H. Wales, Jr., ward 1 . . .	\$15.50	
Theophile G. Biron, ward 1 . . .	15.50	
Henry S. Perry, ward 1 . . .	15.50	
Jesse B. Nourse, ward 2 . . .	11.50	
William Danforth, ward 2 . . .	1.50	
Daniel G. Andrews, ward 2 . . .	15.50	
Nathaniel Doane, Jr., ward 2 . . .	15.50	
John A. Sargent, ward 3 . . .	19.00	

Paid John Cronin, ward 3 . . .	\$19.00
Samuel C. Kennard, ward 3 . . .	19.00
Charles F. Nallgey, ward 4 . . .	15.50
Charles H. Uhlig, ward 4 . . .	15.50
Frank E. Farrell, ward 4 . . .	15.50
Arthur Allen, ward 5 . . .	17.25
Charles J. Woods, ward 5 . . .	17.25
Jeremiah F. Tehan, ward 5 . . .	17.25
Edward P. Cogswell, ward 6 . . .	22.50
Harrison M. Heselton, ward 6 . . .	22.50
Joseph N. Auger, ward 6 . . .	22.50
Robert Leggett, ward 7 . . .	15.50
Hanson R. Armstrong, ward 7 . . .	15.50
Robert Morrow, ward 7 . . .	15.50
George B. Barnes, ward 8 . . .	13.75
Auguste Filion, ward 8 . . .	13.75
Benjamin Mack, ward 8 . . .	13.75
Oswald Paris, ward 9 . . .	12.75
Gideon Belisle, ward 9 . . .	17.25
Martin J. Rafferty, ward 9 . . .	17.25

 \$448.25

SUPERVISORS, 1893 AND 1894.

Paid William B. Stearns, ward 1 . . .	\$19.25
William F. Graner, ward 1 . . .	19.25
Fred C. Hale, ward 2 . . .	22.75
Frank A. Gay, ward 2 . . .	22.75
H. F. W. Little, ward 3 . . .	19.25
David H. Young, ward 3 . . .	14.00
Eugene B. Worthen, ward 4 . . .	21.00
Patrick Fahey, ward 4 . . .	21.00
Patrick E. Daly, ward 5 . . .	24.50
Thomas F. Riordan, ward 5 . . .	24.50
Chester Demick, ward 6 . . .	29.75
Michael F. Burke, ward 6 . . .	29.75
W. T. Payne, ward 7 . . .	15.75
John W. Davis, ward 7 . . .	15.75

Paid Charles H. Hodgman, ward 8 . . .	\$17.50	
Josiah G. Dearborn, ward 8 . . .	17.50	
Albert Montgomery, ward 9 . . .	23.63	
Emile H. Tardivel, ward 9 . . .	23.63	
		<hr/>
		\$381.51

BALLOT INSPECTORS.

Paid Charles Edgar, ward 1 . . .	\$10.50
A. W. Patch, ward 1 . . .	10.50
Paul H. Boire, ward 1 . . .	10.50
Benjamin F. Crudden, ward 1 . . .	10.50
Henry P. Priest, ward 2 . . .	10.50
Harry E. Andrews, ward 2 . . .	10.50
Walter M. Morgan, ward 2 . . .	10.50
John W. Center, ward 2 . . .	10.50
Cyrus H. Little, ward 3 . . .	14.00
George E. Prime, ward 3 . . .	14.00
Samuel J. Laflamme, ward 3 . . .	14.00
Allison L. Partridge, ward 3 . . .	14.00
Harry T. Lord, ward 4 . . .	10.50
Frank H. Lussier, ward 4 . . .	10.50
L. E. Desrochers, ward 4 . . .	10.50
John P. Broderick, ward 4 . . .	10.50
Thomas F. Slattey, ward 5 . . .	12.25
Harry T. Lemay, ward 5 . . .	12.25
James Orr, ward 5 . . .	12.25
John H. Slater, ward 5 . . .	12.25
Charles Lucier, ward 6 . . .	17.50
Joseph P. Chatel, ward 6 . . .	17.50
B. Frank Welch, ward 6 . . .	17.50
Richard J. Brickley, ward 6 . . .	17.50
E. S. Stratton, ward 7 . . .	10.50
James H. Haughey, ward 7 . . .	10.50
N. P. Colby, ward 7 . . .	8.75
Arthur J. McDerby, ward 7 . . .	10.50
Frank O. Clement, ward 8 . . .	8.75
Edward F. Scheer, ward 8 . . .	8.75

Paid Theodore Graf, ward 8 . . .	\$8.75
Henry Lien, ward 8 . . .	8.75
Louis Pare, ward 9 . . .	12.25
John Montplaisir, ward 9 . . .	12.25
Henry R. Fontain, ward 9 . . .	12.25
Scott E. Sanborn, ward 9 . . .	12.25
	<hr/>
	\$425.25
Total expenditures	\$18,763.37
Balance to new account	61.64
	<hr/>
	\$18,825.01

Auditor's Department.

Appropriation	\$2,000.00
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EXPENDITURES.

LABOR.

Paid James B. Straw, salary as auditor for	
January, 1894	\$83.33
James E. Dodge, salary as auditor,	
balance of 1894	927.77
Paid Lizzie M. Cogswell:	
Services as clerk	600.00
Extra work evenings	21.15
	<hr/>
	\$1,632.25

SUPPLIES, ETC.

Paid the American Book Co., 1 Webster's dictionary, and express on same	\$8.70
A. A. Bunton, reseating office chair . . . . .	.75
Paid E. R. Coburn Co.:	
Invoice book	1.75
16 pounds paper	1.60
Paid Lizzie M. Cogswell:	
Cash paid for horse-car fares . . . . .	.20
Cash paid for chamois skins . . . . .	.30
Paid The John B. Clarke Co.:	
3 pounds paper	0.30

Printing 100 postal notices . . .	\$2.00
12,500 billheads . . .	47.50
Paid James E. Dodge:	
Cash paid for express . . . . .	.15
two fountain ink-stoppers . . .	.60
Paid Daniels & Downs, 6 reams paper . .	12.20
Paid W. P. Goodman:	
1 dictionary holder	6.00
Ink, pencils, mucilage, paste, inkstand,	
pens, and stationery	8.70
Paid Hopkins & Holbrook, 500 stamped	
envelopes, and printing return	
notice	11.50
The Hammond Typewriter Co., car-	
bon paper	3.00
Peter Harris, 3 erasers sharpened . .	.25
The Thomas A. Lane Co., supplies,	
electric portable lamp and labor	
on same	4.95
J. B. McCrillis, typewriter ribbons .	2.00
A. J. Smith, carbon paper	7.00
Smith Premier Typewriter Co., 1	
copying ribbon	1.00
Irving L. Stickney, rubber bands . .	.75
Albert Render, 1 dozen elastic ink-	
holders . . . . .	.25
Paid Temple & Farrington Co.:	
3 blank books, No. 4215	6.00
2 blank books, No. 4284, 4285 . . .	6.00
Paste, cord . . . . .	.51
Paid John B. Varick Co., 1 oil-stone . .	.50
George Wallace, typewriter ribbon .	.75
J. Arthur Williams, rubber stamp .	.60
	<hr/>
	\$135.81
Total expenditures	\$1,768.06
Transferred to reserved fund	231.94
	<hr/>
	\$2,000.00

Street and Park Commission.

Appropriation	\$3,750.00	
Transferred from reserved fund	33.65	
	<hr/>	\$3,783.65

EXPENDITURES.

SALARIES.

Paid George H. Stearns, chairman	\$600.00	
L. P. Reynolds	600.00	
H. P. Simpson	600.00	
	<hr/>	\$1,800.00

CLERICAL SERVICES.

Paid Allan E. Herrick, clerk of street and park commission	\$900.00	
Julia F. Stearns, clerk in office of street and park commission	463.50	
	<hr/>	\$1,363.50

CARRIAGE HIRE.

Paid George H. Stearns	\$167.50	
L. P. Reynolds	167.50	
H. P. Simpson	167.50	
	<hr/>	\$502.50

OFFICE SUPPLIES.

Paid E. R. Coburn Co. :		
1 ream legal cap	\$4.75	
9 quires legal cap, numbered	3.75	
Paid A. S. Campbell & Co. :		
2 books, 175 pages each	5.50	
400 return cards	3.50	
Paid W. P. Goodman, 1 quart ink . . . . .	.55	
A. J. Smith, 2 dozen pencils	1.00	
T. H. Tuson, 300 sheets paper	1.50	

Paid Temple & Farrington Co. :

McGill fasteners, rubber bands, paste,
blank books, etc. \$18.60

175 catalogue envelopes 1.40

Paid George P. Wallace, 2 typewriter rib-
bons 2.00

Paid Samuel Ward Company :

3 order books 10.00

3 time books 10.75

1 book 2.10

Paid J. Arthur Williams :

2 self-inking rubber stamps 1.20

1 stamp on old frame25

Printing 2,000 letter heads 3.50

Printing 350 billheads 2.25

2 rubber stamps85

\$73.45

SUNDRIES.

Paid The John B. Clarke Co., printing
200 reports, 70 pages and cover . . . \$27.00

Paid Allan E. Herrick :

Cash paid for express60

Cash paid for postage 1.75

Cash paid J. A. Wheeler for harness
polish50

Paid Peter Harris, repairs on desk35

L. P. Reynolds, cash paid for ex-
penses to Rochester 2.50

George H. Stearns, cash paid for ex-
penses to Boston, September 25 10.50

C. H. Wood, painting tin sign 1.00

\$44.20

Total expenditures \$3,783.65

Repairs of Highways.

Appropriation \$24,000.00

EXPENDITURES.

LABOR.

Paid labor of men and teams, as per pay-roll, division No. 1:

February	\$64.65	
April	56.15	
May	121.25	
June	152.85	
August	66.20	
September	37.00	
October	13.00	
November	103.00	
	<hr/>	\$614.10

Paid labor of men and teams, as per pay-roll, division No. 2:

January	\$644.93	
February	3.50	
March	399.35	
April	877.04	
May	1,390.83	
June	1,464.85	
July	1,612.01	
August	1,249.01	
September	1,924.22	
October	1,214.49	
November	144.60	
December	20.37	
	<hr/>	\$10,945.20

Paid labor of men and teams, as per pay-roll, division No. 4:

April	\$37.50
May	68.75

June	\$105.75
August	29.00
September	70.50
October	42.75
November	42.50

 \$396.75

Paid labor of men and teams, as per pay-roll, division No. 5 :

March	\$8.12
April	64.25
May	148.71
June	58.65
July	1.75
August	144.37
September	115.87
November	12.62
December	3.75

 \$558.09

Paid labor of men and teams, as per pay-roll, division No. 6 :

March	\$3.87
May	74.40
June	430.18
July	32.60
August	218.50
September	227.92
October	55.50
December	5.25

 \$1,048.22

Paid labor of men and teams, as per pay-roll, division No. 7 :

March	\$98.75
April	194.25
May	483.51
June	196.25

July	\$110.75	
August	180.25	
September	590.75	
October	104.25	
November	82.01	
December	24.75	
	<hr/>	\$2,065.52

Paid labor of men and teams, as per pay-roll, division No. 8:

March	\$8.00	
April	148.13	
May	333.45	
June	120.00	
July	34.75	
August	97.36	
September	66.61	
October	83.09	
November	16.50	
December	20.00	
	<hr/>	\$927.89

Paid labor of men and teams, as per pay-roll, division No. 9:

May	\$17.50	
June	238.50	
September	95.00	
October	15.00	
	<hr/>	\$366.00

Paid labor of men and teams, as per pay-roll, division No. 10:

January	\$118.90	
January (Overdraft)	9.75	
February	6.12	
March	173.87	
April	244.70	
May	408.41	

June	\$344.99	
July	501.24	
August	330.61	
September	720.10	
October	393.19	
November	241.92	
December	68.00	
	<hr/>	\$3,561.80

Paid labor of men and teams, as per pay-roll, division No. 12 :

March	\$2.37	
May	24.62	
November	319.44	
December	32.00	
	<hr/>	\$378.43

Paid A. C. Wallace, labor building foot-bridge, as per agreement \$30.00

LUMBER AND OTHER MATERIAL.

Paid James Benson, 60 feet pine plank	\$1.20	
Gilman Clough, lumber	54.23	
Paid S. C. Forsaith Machine Co.:		
203 tree-box pickets	6.09	
Spruce lumber and labor	34.35	
Paid The Head & Dowst Co.:		
600 feet 1 x 6 spruce	9.00	
400 feet 2 x 3 spruce	6.20	
Sawing, planing, and working	2.00	
250 chestnut posts	38.00	
Paid Alcide Pellerin, 50 chestnut posts	5.00	
E. B. Veasey, lumber, nails, molding, labor	27.65	
Paid A. C. Wallace :		
5 oak posts	3.75	
26 old posts	1.56	
214 chestnut posts	34.72	

REPAIRS OF HIGHWAYS.

553

3,681 feet spruce fence boards . . .	\$55.30	
260 feet rough hemlock boards . . .	2.60	
Other lumber	1.50	
Spikes, nails, etc., used in building foot- bridge	1.87	
Pickets, etc.	1.06	
Paid I. T. Webster, boards and posts . .	11.16	
David Wells, 38 chestnut posts . . .	5.70	
	<hr/>	\$302.94

TOOLS AND HARDWARE.

Paid Manchester Hardware Co.:

Spikes, wire, nails, mattock . . .	\$4.53
4 garden barrows	10.00
27 picks	27.00
32 pick handles	9.16
3 plow points	2.01
Steel wedges, street hoe	1.39
Other hardware . . . . .	.96

Paid John B. Varick Co.:

Plow points, plow beam	4.85
Picks and handles	4.75
Shovels	13.74
Axes and handles	18.65
Hoes, wrenches	2.20
Spikes, bolts, nails	7.95
Powder and fuse	2.25
Other hardware	32.97

Paid Wadleigh Hardware Co.:

Powder, fuse, etc.	8.08
Spikes and nails	2.20
Steel wedges . . . . .	.88

Paid Allen N. Clapp:

Nails and spikes	1.35
Oil, seeds, twine	6.85
Hammer, wicks, pails, etc.	3.21
	<hr/>

\$164.98

BLACKSMITHING AND REPAIRS.

Paid L. M. Aldrich, repairing levels, filing saw	\$1.30
James Benson, sharpening tools	2.05
John Bryson, paint, sandpaper, and labor on drinking fountains	13.49
J. M. Brouillette, sharpening pick . . . . .	.50
N. Decoteau, repairing picks	1.00
R. W. Flanders, sharpening picks, repairing chains, etc.	6.40
Paid John Hadlock:	
Repairing road machine	58.00
Bolts, castings, etc.	17.00
Paid James Morison, sharpening picks	1.75
Paid J. B. McCrillis & Son:	
Mending chain . . . . .	.15
Repairing road scraper	1.58
	<hr/>
	\$103.22

STONE, GRAVEL, CLAY, ETC.

Paid Boyce & Merrill, 17 loads gravel	\$1.70
William Campbell, 50 loads gravel	5.00
I. R. Dewey, 132 loads gravel	26.40
Paid Edwards O. Dodge:	
3 loads stone	3.00
139 loads gravel	13.90
Paid Mrs. A. G. Gray, 73 loads gravel	7.30
Mrs. Mary Hartshorn, 93 loads sand	9.30
Addison Gray, 83 loads gravel	8.30
Paid W. G. Landry:	
40 loads sand	12.00
113 loads dirt	28.25
Paid John Loveren, 80 loads gravel	8.00
Ida Libbey, 264 loads gravel	26.40
Byron E. Moore, 105 loads clay	6.30
John Parmenter, 119 loads gravel	11.90

Paid Frank Preston, 50 loads gravel . . .	\$5.00
Paid C. C. Webster :	
60 loads clay	3.60
Stone for widening culvert	4.00
Paid Thomas Walker, Jr., 20 loads gravel . . .	1.20

 \$181.55

MISCELLANEOUS.

Paid Boston & Maine Railroad, freight on bolts, wheels, and axle . . .	\$1.04
E. R. Coburn Co., blank books and pencils	3.27
Concord & Montreal Railroad, freight on hose and bolts . . .	1.29
Alfred T. Dodge, use of team to November 28, 1893	39.00
F. L. Downs, 2 pairs men's rubber boots	5.75
Eager & Rand, salt . . . . .	.60
H. Leibing, paint, glass, etc.	5.64
Paid The Thomas A. Lane Co. :	
1 8-inch Akron elbow . . . . .	.63
Plugs, caps, pipe, and labor . . . .	.55
Paid Clarence R. Merrill, 3 barrels lime	2.85
Frederick Perkins, attendance on Michael Rainey	8.00
Paid Luther S. Proctor :	
1 drag	3.50
1 lot railing poles	3.00
Paid Charles H. Robie Co., concreting sundry crossings, etc.	447.12
Paid People's Gas-Light Co. :	
Gas from February 1, 1894, to March 1, 1894, Fire King engine-house . . . .	.84
2 chaldrons coke	8.00
Paid D. L. Robinson, 1 drag chain	2.00

Paid Sanborn Carriage Co., 1 iron grate	\$0.50	
Paid L. and W. T. Seiberlich :		
2 whitewash brushes	1.50	
Setting glass . . . . .	.50	
Paid Temple & Farrington Co. :		
Ledgers and pencils	2.50	
Paper, mucilage, ink, pens, blank books	13.71	
Paid J. T. Underhill & Co., concreting		
sundry crossings	238.83	
	<hr/>	\$790.62
Total expenditures		\$22,435.31
Transferred to snow and ice appropriation		1,335.02
Transferred to Stark and Derryfield parks appropri-		
ation		158.73
Transferred to reserved fund		70.94
	<hr/>	\$24,000.00

Snow and Ice.

Appropriation	\$4,000.00	
Transferred from repairs of highways ap-		
propriation	1,335.02	
	<hr/>	\$5,335.02

EXPENDITURES.

LABOR.

Paid labor of men and teams, as per pay-roll, divi-		
sion No. 1 :		
February		\$22.25
Paid labor of men and teams, as per pay-roll, divi-		
sion No. 2 :		
January	\$624.03	
February	1,980.34	
March	591.58	
	<hr/>	\$3,195.95

Paid labor of men and teams, as per pay-roll, division No. 4:

January	\$8.25
February	48.75

 \$57.00

Paid labor of men and teams, as per pay-roll, division No. 5:

January	\$8.75
February	83.74

 \$92.49

Paid labor of men and teams, as per pay-roll, division No. 6:

January	\$4.82
February	34.99

 \$39.81

Paid labor of men and teams, as per pay-roll, division No. 7:

January	\$57.25
February	136.51

 \$193.76

Paid labor of men and teams, as per pay-roll, division No. 8:

January	\$5.75
February	47.25

 \$53.00

Paid labor of men and teams, as per pay-roll, division No. 9:

January	\$16.50
February	70.12

 \$86.62

Paid labor of men and teams, as per pay-roll, division No. 10:

January	\$513.47
February	708.00
March	266.91

 \$1,488.38

Paid labor of men and teams, as per pay-roll, division No. 12 :

February	\$3.00	
March	49.12	
	<hr/>	\$52.12

SAND AND SALT.

Paid Eager & Rand, salt	\$6.45	
H. Fradd & Co., salt	4.40	
Austin Goings, 20 loads sand	4.00	
Mary Hartshorn, 195 loads sand	19.50	
	<hr/>	\$34.35

SUPPLIES AND MISCELLANEOUS.

Paid A. N. Clapp, 6 shovels	\$3.90	
H. Fradd & Co., shovels	2.50	
The Head & Dowst Co., one half window to replace one broken by snow and ice . . . . .	.65	
Paid Manchester Hardware Co.:		
1 pair brackets . . . . .	.35	
1 dozen pick handles	2.50	
Pulley and sash weights . . . . .	.35	
Paid John B. Varick Co.:		
Barbed wire staples . . . . .	.04	
20 square feet sand screening	4.40	
1 sidewalk cleaner . . . . .	.60	
Shovels	4.00	
	<hr/>	\$19.29
Total expenditures		<hr/> \$5,335.02

New Highways.

Appropriation	\$20,000.00	
Transferred from reserved fund	367.35	
	<hr/>	\$20,367.35

EXPENDITURES.

LABOR.

Paid men, as per pay-roll, in division No. 1 :

June	\$200.00	
July	358.25	
	<hr/>	\$558.25

Paid men, as per pay-roll, in division No. 2 :

January	\$45.00	
February	36.00	
March	109.76	
April	1,080.57	
May	2,781.31	
June	1,406.82	
July	1,011.20	
August	1,589.52	
September	445.79	
October	1,909.26	
November	681.68	
	<hr/>	\$11,096.91

Paid men, as per pay-roll, in division No. 7 :

May	\$320.75	
June	661.00	
July	202.75	
August	340.00	
September	30.00	
	<hr/>	\$1,554.50

Paid men, as per pay-roll, in division No. 10 :

April	\$378.61	
May	1,149.89	
June	866.37	
July	576.91	
August	75.61	
September	346.48	

October	\$667.05	
November	70.93	
	<hr/>	\$4,131.85
Paid D. H. Dickey, work on culvert, Cohas avenue :		
9 days' labor	\$16.74	
Laying 462 feet stone	32.37	
Paid H. Haibert, building bank wall from		
Wayne street to Amory street on		
Main back street	755.00	
O. E. Kimball, one half cost build-		
ing and painting picket fence at		
South Manchester	35.78	
John F. Larkin, contract for setting		
fence rails, Second-street bridge .	148.00	
Paid Moore & Preston :		
Building Trenton street	175.00	
Teaming 32 loads sand	8.00	
Paid John H. Proctor, building Page		
street, as per contract	380.00	
	<hr/>	\$1,550.89

TOOLS AND HARDWARE.

Paid Manchester Hardware Co.:

Pick handles	\$11.25
Steel bar	4.39
6 Ames shovels	5.25
30 picks	30.00
Plow points	8.64
Other hardware	1.61

Paid John B. Varick Co.:

Plow points	51.98
1 Doe plow with wheel and cutter .	17.00
Shovels	46.00
Rope	5.70
Lanterns	14.00
Street hoes, mattocks	8.40

NEW HIGHWAYS.

561

Steel crowbars, ax	\$4.67	
Padlocks, lath yarn	1.72	
Other hardware	53.08	
Paid The Wadleigh Hardware Co.:		
1 water yoke	1.25	
Powder, fuse, etc. . . .	60.49	
		<hr/>
		\$325.43

STONE, LUMBER, AND OTHER MATERIALS.

Paid Charles A. Bailey :		
56½ perch covering stone, East Manchester culvert	\$339.00	
39½ perch covering stone, Sagamore-street culvert	136.27	
Paid F. S. Bodwell, 81 posts for marking new streets		
Warren Harvey, 9 loads covering stone	27.00	
Paid The Head & Dowst Co.:		
1,217 feet spruce	18.26	
142 feet drag plank	5.68	
Ironwork, etc., on drags	2.71	
Labor, etc. . . .	4.58	
Paid Jesse Tirrell, 6 loads cobblestones .		
A. C. Wallace, 656 feet spruce fence boards	9.84	
Adams & Tasker, 1 barrel lime .	.95	
		<hr/>
		\$650.94

SUNDRIES.

Paid James Briggs, tin dippers, oil can	\$0.55
The Thomas A. Lane Co., 1 1 x 6 nipple, 1 ell for steam drill .	.19
Moore & Preston, 2,325 pounds of Cumberland coal	6.39
Star Stamp Co., 6 brass checks .	1.20

Paid John E. Towle & Co., 5 pork barrels	\$2.50	
Wingate & Gould, 4 pairs rubber boots	12.75	
	<hr/>	\$23.58
Total expenditures		\$19,892.35
Transferred to appropriation for South Main street bridge		475.00
	<hr/>	\$20,367.35

Damage of Land Taken for Highways.

Appropriation	\$8,000.00	
Transferred from reserved fund	8,430.71	
	<hr/>	\$16,430.71

EXPENDITURES.

DAMAGES AWARDED BY MAYOR AND ALDERMEN.

Paid Mrs. Emma F. Brown, land damage, extension of Cass street	\$103.49
Sydney A. Blood, land damage, Dearborn street	100.00
Lawrence Dowd, extension of Maple street	475.00
Mrs. Edwidge Eno, land damage, execution	94.26
George H. Elliott, land damage, building street	500.00
S. G. Fletcher, land damage and moving buildings, Hayward street	1,800.00
Charles G. Hastings, land damage, extension Cypress street	1,100.00
John T. Hanigan, land damage, Cartier street	700.00
Horace I. Johnson, <i>et al.</i> , judgment recovered	1,999.51

Paid A. S. Lamb, land damage, Hayward street	\$1,205.28
John Mulligan, land damage, Cass street	90.89
Patrick O'Neil, land damage, Cartier street	450.00
M. Prout, land damage, Young and Hayward streets	949.30
Mrs. Susan Prescott, land damage, Cass street	9.89
Louis St. John, land damage, execution	70.87
Chas. P. Still, land damage, execution	461.31
Joseph Trudeau, land damage, execution	104.76
Theophile Trottier, land damage, Cartier street	800.00
John T. Underhill, land damage, building sewer	500.00
George R. Vance, land damage, execution	326.62
Flora A. Woodman, executrix, land damage, execution	1,065.55
Sarah B. Woodman, land damage, judgment recovered	751.98
Hannah Welch, <i>et al.</i> , land damage, execution	300.00
D. C. Whittemore, land damage, Bartlett street	2,472.00
	<hr/> \$16,430.71

Watering Streets.

Appropriation	\$4,000.00
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EXPENDITURES.

LABOR.

Paid labor of men, as per pay-roll, in division No. 2 :

January	\$33.25
March	129.69
April	141.05
May	334.45
June	461.64
July	597.31
August	564.98
September	366.59
October	289.00
December	14.12
	<hr/>
	\$2,932.08

Paid labor of men, as per pay-roll, in division No. 10 :

March	\$4.50
April	14.37
May	123.37
June	111.75
July	168.13
August	147.87
September	97.25
October	62.50
	<hr/>
	\$729.74

REPAIRS.

Paid The Head & Dowst Co.:

50 feet oak	\$1.75
72 feet chestnut, and labor	2.41

Paid John T. Beach, repairing sprinkler
wheels 13.65

Paid The Thomas A. Lane Co.:

Material and labor on troughs and foun- tains	95.75
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Material and labor on standpipes . . .	\$9.70	
Repairs on fountains, shutting off water and turning on same for painters, etc. . .	17.46	
Paid Frank I. Lessard & Co.:		
Material and labor on fountains . . .	50.30	
Repairing street pipe, junction of Main and McGregor streets	2.51	
Repairing standpipe, Turner street . . .	1.95	
Paid George W. Rief:		
Labor on trough	1.60	
Repairs on sprinkler	2.68	
Paid A. Filion, repairing sprinklers . . .	12.50	
Paid Pike & Heald Co.:		
Repairing pipe to troughs	5.81	
Labor on fountains, etc.	5.30	
Material and labor on sprinklers . . .	37.29	
Dippers, chains, etc.	5.63	
Paid S. C. Forsaith Machine Co., repairs on axle	6.15	
Paid John B. Varick Co.:		
600 bolts	10.15	
4 drills	3.45	
7½ pounds oakum . . . . .	.75	
Steel and iron	3.67	
Paint, varnish, brushes, etc.	20.09	
Other hardware	5.09	
Paid Adams & Tasker, 1 5-inch bend . . .	.56	
John Driscoll, 3 dozen dippers	5.40	
John Bryson, paint and labor . . . . .	.66	
	<hr/>	\$322.26
Total expenditures		\$3,984.08
Transferred to reserved fund		15.92
		<hr/>
		\$4,000.00

Paving Streets.

Appropriation	\$6,000.00
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EXPENDITURES.

LABOR.

Paid labor of men and teams, as per pay-roll, division No. 2 :

March	\$19.13	
April	72.26	
May	271.50	
June	344.25	
July	388.50	
August	382.99	
September	310.95	
October	305.25	
November	59.00	
	<hr/>	\$2,153.83

Paid labor of men and teams, as per pay-roll, division No. 7 :

August	\$55.00	
September	20.00	
	<hr/>	\$75.00

Paid labor of men and teams, as per pay-roll, division No. 10 :

April	\$136.37	
May	279.14	
June	226.00	
July	319.99	
August	127.34	
September	12.38	
October	68.43	
	<hr/>	\$1,169.65

TOOLS AND HARDWARE.

Paid Manchester Hardware Co. :

1 50-foot tape-line	\$0.30
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PAVING STREETS.

567

1 fibre pail	\$0.45	
Paid John B. Varick Co. :		
Hammers and handles	1.70	
23 pounds steel	2.99	
64 pounds Norway iron	2.24	
Other hardware	2.75	
Paid Wadleigh Hardware Co., 6 rules	1.50	
	<hr/>	\$11.93

PAVING STONE AND GRAVEL.

Paid W. H. Colburn, 392 loads paving stone	\$686.00	
Mrs. Mary Hartshorn, 24 loads paving stone	30.00	
Joseph Peltier, 8 loads paving stone	14.00	
Charles A. Bailey, 4,686 paving blocks	220.66	
	<hr/>	\$950.66

CONCRETE CROSSINGS.

Paid C. H. Robie Co. :		
Concrete, sundry places	\$826.91	
412 gallons pitch	61.80	
Paid J. T. Underhill & Co., concrete, sundry places	581.48	
	<hr/>	\$1,470.19

MISCELLANEOUS.

Paid George W. Rief, lumber and labor	\$5.76	
Paid Charles A. Bailey :		
3 cesspool stones	9.00	
36 circles	108.00	
30 feet curbing	12.00	
	<hr/>	\$134.76
Total expenditures	\$5,966.02	
Transferred to reserved fund	33.98	
	<hr/>	\$6,000.00

Macadamizing Streets.

Appropriation	\$15,000.00	
Transferred from reserved fund	165.99	
	<hr/>	\$15,165.99

EXPENDITURES.**LABOR.**

Paid labor of men, as per pay-roll, division No. 2 :

March	\$52.50	
April	99.00	
May	534.84	
June	584.81	
July	1,809.69	
August	2,211.08	
September	1,108.73	
October	1,073.05	
	<hr/>	\$7,473.70

Paid labor of men, as per pay-roll, division No. 10 :

August	\$853.55
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FUEL, FREIGHT, AND WATER.

Paid L. B. Bodwell & Co., 3 tons Cum-

berland coal	\$18.00
Dunlap & Wason Coal Co., 3 tons	
Cumberland coal	18.00
D. M. Poore, 1 ton Cumberland	
coal	6.00
People's Gas-Light Co., 22 chal-	
drons coke	88.00
Boston & Maine Railroad, freight	
on oil, castings, powder	6.40
Concord & Montreal Railroad,	
freight on gravel	4.00
board of water commissioners, use	
of water	15.00

\$155.40

TOOLS AND HARDWARE.

Paid Champion Flue Scraper Co., 2 scrapers \$7.00

Paid Manchester Hardware Co.:

12 canal barrow trays 10.00
 7 dozen sledge handles 11.40
 91 pounds drills 13.65
 Lath yarn and twine60
 Other hardware 33.50

Paid John B. Varick Co.:

Rubber packing 3.70
 Oil and oilers 2.68
 Cotton waste 12.50
 Steel and iron 16.14
 Emery cloth, snips, white lead 2.56
 Hammers 33.15
 Trowels 2.20
 Files 2.99
 Rivets, bolts, hinges, screws 3.42
 Other hardware 51.32

Paid The Wadleigh Hardware Co.:

Ratchet, rotating bar 11.88
 Pawl, springs, buffers, nuts, etc. 11.05
 Nails, padlock 2.05
 Forcite, fuse, powder, etc. 365.47
 Tallow 6.10
 Other hardware 8.75

\$612.11

LUMBER, CASTINGS, AND REPAIRS.

Paid S. C. Forsaith Machine Co.:

Material and labor on road roller \$14.66
 Material and labor on crusher 87.33
 Material and labor 58.87
 Labor putting teeth into gear 1.00
 New parts to crusher and moving same 170.00

New and complete building for engine, crusher, etc.	\$1,472.00	
Repairs	1.65	
Erection of crusher plant, and putting same in running order	475.00	
Paid Joseph Huneau, repairs on crusher and pump	9.97	
C. H. Hutchinson Foundry and Ma- chine Works, castings for crusher	16.12	
The Head & Dowst Co., lumber .	16.44	
The Thomas A. Lane Co., coup- lings, packing, pipe, labor . .	43.61	
Swan & Finch Co., 50 gallons ma- chinery oil	15.00	
The Farrell Foundry & Machine Co., plates, bearings, etc. . .	50.38	
Vacuum Oil Co., 50½ gallons ma- chinery oil	34.33	
F. E. Webster, repairing and paint- ing wagon	19.50	
A. C. Wallace, lumber	25.54	
	<hr/>	\$2,511.40

CONCRETE.

Paid George F. Higgins, repairing road- way, Merrimack street	\$25.00	
C. H. Robie Co., concrete, sundry places	1,181.51	
J. T. Underhill & Co., concrete, sundry places	316.32	
	<hr/>	\$1,522.83

STONE.

Paid Charles A. Bailey, 34 carloads stone chips and freight on same . . .	\$254.43	
Massachusetts Broken Stone Co., 2,- 469,100 pounds broken stone .	1,728.43	
	<hr/>	\$1,982.86

SUNDRIES.

Paid Eager & Rand, 4 hogsheads . . .	\$4.00	
L. M. Aldrich, filing two saws . . .	.40	
James Briggs, 1 tunnel, 4 sheets tin . . .	.85	
Bartlett & Thompson, 40½ lbs. suet . . .	1.62	
H. I. Faucher, 1 hoghead . . .	1.00	
Hartford Steam Boiler Inspection & Insurance Co., insurance for one year, May 21, 1895 . . .	22.50	
Paid Pike & Heald Co.:		
1 dipper . . . . .	.10	
Labor and material, stone crusher . . .	5.61	
Paid People's Gas-Light Co., 400 cubic feet gas, city crusher . . .	.56	
George W. Rief, 1 gallon belt dress- ing	2.50	
Sacred Heart Hospital, care and at- tendance, case Michael Murphy . . .	15.00	
		\$54.14
Total expenditures		\$15,165.99

Grading for Concrete.

Appropriation	\$4,000.00
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EXPENDITURES.

LABOR.

Paid labor of men, as per pay-roll, in division No. 2 :

March	\$86.01
April	202.49
May	167.76
June	227.75
July	226.62
August	326.73

September	\$247.38	
October	5.87	
November	43.50	
December	5.12	
	<hr/>	\$1,539.23

Paid labor of men, as per pay-roll, in division No. 7 :

August	\$63.00	
September	35.00	
December	8.00	
	<hr/>	\$106.00

Paid labor of men, as per pay-roll, in division No. 10 :

April	\$12.75	
May	119.88	
June	68.24	
July	156.25	
August	79.06	
September	20.12	
	<hr/>	\$456.30

STONE.

Paid Charles A. Bailey :

Curbstone	\$628.64
141 circles	519.00
58 cesspool stones	174.00

Paid Warren Harvey :

1,205½ feet curbstone	482.20	
Covering stone	53.60	
	<hr/>	\$1,857.44

TOOLS AND HARDWARE.

Paid The Wadleigh Hardware Co., powder and fuse	\$1.26
Total expenditures	<hr/> \$3,960.23
Transferred to reserved fund	39.77
	<hr/> \$4,000.00

Scavenger Service.

Appropriation \$16,000.00

EXPENDITURES.

LABOR.

Paid labor of men, as per pay-roll, division No. 2 :

January	\$933.45
February	735.98
March	1,351.33
April	760.70
May	814.35
June	729.69
July	612.92
August	773.19
September	698.96
October	932.64
November	894.70
December	775.73
	<hr/> \$10,013.64

Paid labor of men, as per pay-roll, division No. 10 :

January	\$170.20
February	142.14
March	297.75
April	298.63
May	275.93
June	125.94
July	201.63
August	179.62
September	104.63
October	188.31
November	128.37
December	118.73
	<hr/> \$2,231.88

ON CONTRACT.

Paid city farm, scavenger service one year to January 1, 1895 \$2,499.96

TOOLS AND HARDWARE.

Paid Manchester Hardware Co., 6 steel		
rakes	\$2.00	
Pike & Heald Co., 6 scoops . .	3.60	
Paid John B. Varick Co.:		
Forks and handles	2.00	
6 rakes	2.25	
13 rattan brooms	7.04	
Other hardware	44.20	
	<hr/>	\$61.09

SUNDRIES.

Paid The Fred Allen Co., 8 storm horse		
covers	\$30.00	
The John B. Clarke Co., printing		
3,100 scavenger cards	10.00	
The Head & Dowst Co., lumber . .	4.04	
Kimball Carriage Co., horse covers	16.50	
M. Prout, 1 gallon alcohol . . .	2.75	
George W. Rief, lumber and labor,		
repairing sleds	10.70	
	<hr/>	\$73.99
Total expenditures		\$14,880.56
Transferred to reserved fund		1,119.44
		<hr/>
		\$16,000.00

Street Sweeping.

Appropriation	\$1,200.00
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EXPENDITURES.

LABOR.

Paid labor of men, as per pay-roll, division No. 2 :	
April	\$119.75
May	196.61

BRIDGES.

575

June	\$93.88	
July	173.59	
August	171.98	
September	106.25	
October	159.39	
	<hr/>	\$1,021.45

Paid labor of men, as per pay-roll, division No. 10 :

August	\$7.50	
September	19.00	
	<hr/>	\$26.50

HARDWARE.

Paid Manchester Hardware Co. :

1 pair pliers	\$0.75	
1 12-inch wrench . . . . .	.65	
	<hr/>	\$1.40

REPAIRS.

Paid Abbott-Downing Co., sprinkler gears	\$7.00	
S. A. Felton & Son Co., street sweepers refilled	64.00	
I. L. Stickney, 4 yards enameled cloth	1.40	
	<hr/>	\$72.40

SUNDRIES.

Paid D. H. Maxfield, cash paid for express	\$1.00	
Total expenditures	\$1,122.75	
Transferred to reserved fund	77.25	
	<hr/>	\$1,200.00

Bridges.

Appropriation	\$3,000.00
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EXPENDITURES.

LABOR.

Paid labor of men, as per pay-roll, division No. 2 :

January	\$67.86	
February	27.99	
March	7.88	
April	41.25	
May	81.14	
June	162.50	
July	173.57	
August	147.31	
September	118.50	
October	165.14	
November	50.69	
December	102.30	
	<hr/>	\$1,146.13

Paid labor of men, as per pay-roll, division No. 9 :

October	\$14.25
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Paid labor of men, as per pay-roll, division No. 10 :

March	\$9.13	
May	61.00	
June	3.06	
August	9.50	
	<hr/>	\$82.69

Paid John F. Larkin, labor on fence rails,

Second-street bridge	\$8.00
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S. F. Patterson, labor on Amoskeag

bridge	38.00
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\$46.00

LUMBER.

Paid S. C. Forsaith Machine Co., lumber,

Granite bridge	\$329.95
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The Head & Dowst Co., lumber, re-

pairs on different bridges	352.94
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SOUTH MAIN-STREET BRIDGE.

577

Paid S. F. Patterson, lumber, etc.	\$16.69	
A. C. Wallace, 72,249 feet 3-inch hemlock plank, per contract	787.53	
	<hr/>	\$1,487.11

HARDWARE.

Paid Manchester Hardware Co., nails, spikes, files, etc.	\$30.60	
Paid John B. Varick Co.:		
Nails, spikes, screws	22.91	
Auger bit, hammer, turpentine, pencils	6.75	
Iron, paint, brushes	4.68	
Other hardware . . . . .	.93	
Paid The Wadleigh Hardware Co., spikes	1.84	
	<hr/>	\$67.71

SUNDRIES.

Paid C. H. Hutchinson Foundry and Ma- chine Works, material and repairs on patterns, level, etc.	\$1.40	
Pike & Heald Co., railing, South Main-street bridge, per contract, \$58; less charge to George East- man, \$2.97	55.03	
	<hr/>	\$56.43
Total expenditures		\$2,900.32
Transferred to reserved fund		99.68
		<hr/>
		\$3,000.00

South Main-Street Bridge.

Appropriation	\$20,000.00	
Transferred from reserved fund	7,975.00	
Transferred from new highway appropri- ation	475.00	
	<hr/>	\$28,450.00

EXPENDITURES.

CONTRACT.

Paid L. F. Kittredge & Son \$28,450.00

City Teams.

Appropriation	\$6,300.00	
Transferred from reserved fund . .	698.40	
	<hr/>	\$6,998.40

EXPENDITURES.

LABOR.

Paid labor of men, as per pay-roll, division No. 2 :

January	\$357.48	
February	220.37	
March	120.64	
April	166.30	
May	156.51	
June	135.81	
July	145.43	
August	175.50	
September	204.43	
	<hr/>	\$1,682.47

Paid labor of men, as per pay-roll, division No. 10 :

January	\$26.49	
February	15.24	
March	8.50	
April	12.25	
May	17.12	
June	21.00	
July	17.25	
August	20.44	
September	27.37	
	<hr/>	\$165.66

OATS, CORN, FEED, HAY, AND STRAW.

Paid Adams & Tasker	\$201.76
Annis Flour & Grain Co. . . .	400.76
F. H. Brown	14.04
George Butterfield	90.86
D. Butterfield	19.26
W. Currier	39.20
Henry Chandler	5.60
Freeman & Merrill	95.20
A. G. Fairbanks	64.08
Gage & McDougall	711.34
J. P. Griffin	7.58
Frank D. Hanscom	25.42
Clarence R. Merrill	416.83
Peter Parker	45.22
Partridge Brothers	161.15
Michill Parault	226.88
H. C. Smith	8.30
Frederick Smyth	85.00
C. D. Welch	160.62
	<hr/>
	\$2,779.10

BLACKSMITHING.

Paid Connor & Grossman, horseshoeing	\$10.00
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HARNESSES AND REPAIRS.

Paid Kimball Carriage Co.:	
Oil, soap, sponges	\$6.12
4 blankets, lettered	29.00
Paid Ranno Harness Co.:	
Repairing harnesses	11.75
Storm covers	9.25
Bit, crupper, strap, whips	3.85
Calking boot, snaps, surcingle, etc. . . .	9.35
New harness	42.00
Currycombs, sponges, reins	4.05

Paid Thomas P. Riley, repairing harnesses, etc.	\$93.75	
N. J. Whalen, whips, straps, collars, etc.	13.25	
	<hr/>	\$222.37

REPAIRS ON CARRIAGES AND NEW CARRIAGES.

Paid John T. Beach, repairs, etc.	\$62.90	
Paid A. Filion :		
New wheels, ironed	29.00	
5 pair cart wheels, and painted	29.00	
Repairs	10.00	
Paid J. B. McCrillis & Son :		
Repairs, etc.	33.65	
1 2-horse sled	75.00	
2 1-horse sleds	120.00	
Paid Sanborn Carriage Co., 1 shaft and bolts	2.25	
	<hr/>	\$361.80

HARDWARE.

Paid J. H. Farnham, files and rasps	\$10.81	
H. Leibing, paint, brushes, sandpaper	5.83	
Paid Manchester Hardware Co.:		
Axle grease	3.50	
12 barrow trays	10.00	
Bolts, bits	3.21	
Paint, varnish, etc.	19.99	
Other hardware	10.15	
Paid John B. Varick Co.:		
Steel and iron	78.99	
Horseshoes	34.04	
Bits, files, nails, rivets	29.27	
Cherry welding compound	2.90	
Bolts and screws	11.30	
Turpentine, paint, oil, etc.	17.06	

CITY TEAMS.

581

Nuts, washers, wrenches, drills . . .	\$17.34	
Sponges, soap	17.69	
Other hardware	62.50	
Paid Wadleigh Hardware Co.:		
Harness hooks . . . . .	.90	
Axle grease, shears, brooms, wicks, rope, tarred paper	9.74	
	<hr/>	\$345.22

MEDICAL SERVICES AND INSURANCE.

Paid A. W. Baker, dentistry work on horses' teeth	\$20.00	
Paid Z. Foster Campbell:		
5 gallons Pulsifer's Healer	20.00	
Sweet spirits nitre	3.99	
Camphoria, witch hazel	1.22	
Paid J. A. Charest, V. S.:		
Medicine	2.00	
Filing teeth	1.00	
Paid Edward H. Currier, 1 can Sure Cure	2.50	
J. L. Golden, medical services, medicine	27.45	
John F. Kerwin, 600 lbs. Peel's Food	36.00	
W. B. Mitchell, medicine	1.05	
Security Live Stock Insurance Co., fees and assessments on policies .	241.84	
	<hr/>	\$357.05

STOCK.

Paid Cavanaugh Brothers, gray mare	\$200.00
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WATER, GAS, TELEPHONE, FUEL.

Paid Water-works, use of water to Janu- ary 1, 1895	\$61.00
People's Gas-Light Co., gas at stable	157.64

Paid New England Telephone & Tele-		
graph Co., use of telephone .	\$72.90	
L. B. Bodwell & Co., 13 tons egg		
coal	77.00	
Dunlap & Wason Coal Co., 4 tons		
Cumberland coal	24.50	
Moore & Preston, 2 tons Cumber-		
land coal	11.00	
People's Gas-Light Co., 3 chaldrons		
of coke	12.00	
J. F. Wyman, 2 tons egg coal .	12.50	
	<hr/>	\$428.54

REPAIRS ON BLACKSMITH'S SHOP AND CITY STABLES.

Paid John Driscoll :		
12 joints pipe	\$4.20	
1 elbow . . . . .	.35	
Labor . . . . .	.75	
Paid The Head & Dowst Co., lumber		
and labor	39.05	
The Thomas A. Lane Co., 1 $\frac{1}{4}$ -inch		
cock . . . . .	.49	
Pike & Heald Co., plumbing mate-		
rial and labor	170.00	
George W. Rief, lumber and labor .	8.24	
A. C. Wallace, lumber	17.13	
William E. Williams, repairs on		
blacksmith's shop	12.36	
	<hr/>	\$252.57

HORSE HIRE.

Paid Clarence B. Danforth, use of horse .	\$3.00	
W. J. Freeman, use of team . . .	1.00	
E. T. James, use of teams . . .	49.50	
Lamoreaux Brothers, use of team .	1.50	
C. H. Simpson, use of teams . . .	56.50	
Whitten & Fifield, use of team .	2.00	
	<hr/>	\$113.50

MISCELLANEOUS.

Paid F. S. Bodwell, stone for setting tires	\$25.00	
A. N. Clapp, oil, brooms, nails, salt, hinges	9.29	
Concord & Montreal Railroad, freight on snow plow . . . .	.33	
John Driscoll, galvanized iron pipe	3.25	
Eager & Rand, soap and matches .	1.55	
C. H. Hutchinson Foundry & Ma- chine Works, 2 stamps	2.00	
Chas. A. Hoitt & Co., 4 shades .	1.72	
T. F. Hannaford, 12 brooms . . .	6.50	
A. & W. S. Heath, pair rubber boots	3.50	
The Thomas A. Lane Co., 1 hose nozzle . . . . .	.40	
Clarence R. Merrill, 1 barrel lime .	.95	
E. D. Rogers, 12 pails axle paste .	6.00	
L. & W. T. Seiberlich, glass and setting	1.10	
Irving L. Stickney, 29½ pounds leather	12.28	
Union Oil Co., 5 gallons naphtholeum	6.25	
	<hr/>	\$80.12
Total expenditures		<hr/> \$6,998.40

Repairs of Sewers.

Appropriation	\$6,000.00
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EXPENDITURES.

LABOR.

Paid labor of men, as per pay-roll, division No. 2 :

January	\$83.23
February	29.00

March	\$216.86	
April	34.63	
May	419.36	
June	247.88	
July	199.93	
August	624.64	
September	435.57	
October	540.14	
November	276.10	
December	46.81	
	<hr/>	\$3,154.15

Paid labor of men, as per pay-roll, division No. 10 :

January	\$6.41	
March	6.12	
April	41.06	
May	174.25	
June	55.19	
July	54.26	
August	91.12	
September	109.12	
October	231.99	
November	30.87	
December	1.75	
	<hr/>	\$802.14

HARDWARE.

Paid John B. Varick Co., 28 cesspool dipper handles \$11.67

MATERIAL, LABOR, ETC.

Paid M. J. Coleman, plumbing repairs,
 Mrs. E. H. Collins \$14.75
 Samuel Eastman & Co., 500 feet
 leather hose 500.00
 W. P. Farmer, 1 pair rubber hip
 boots 4.00
 Gatz & Graupner, lumber and labor 9.50

Paid The Thomas A. Lane Co., piping material and labor	\$115.78	
Pike & Heald Co., 2 dippers . .	1.74	
George L. Robinson, 2 pairs rubber boots	7.50	
Paid Irving L. Stickney :		
5 oil suits	11.25	
2 hats	1.00	
Paid Palmer & Garmon, cutting cesspool stone	16.45	
	<hr/>	\$681.97

CEMENT, BRICK, STONE, LUMBER.

Paid F. S. Bodwell, 24 cesspool stones .	\$66.00	
W. F. Head & Son, 7 M. brick .	42.00	
The Head & Dowst Co., 500 feet 10 x 10 spruce	7.75	
Clarence Merrill, 4 barrels cement .	5.40	
Warren Harvey, edge stone, steps, flagging, etc.	390.93	
	<hr/>	\$512.08

MISCELLANEOUS.

Paid Concord & Montreal Railroad, freight on brick	\$28.00	
John B. Hall, labor cleaning three cellars, Cilley block	10.00	
Manchester Heating & Lighting Co., repairs on blasting battery .	1.60	
	<hr/>	\$39.60
Total expenditures		\$5,201.61
Transferred to reserved fund		798.39
		<hr/>
		\$6,000.00

New Sewers.

Appropriation	\$55,000.00
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EXPENDITURES.

LABOR.

Paid labor of men, as per pay-roll, division No. 2 :

April	\$785.06
May	2,294.30
June	2,931.50
July	2,930.91
August	3,628.17
September	2,852.51
October	3,618.44
November	2,597.46
December	2,640.05
	<hr/>
	\$24,278.40

Paid labor of men, as per pay-roll, division No. 7 :

October	\$33.00
November	102.01
December	30.00
	<hr/>
	\$165.01

Paid labor of men, as per pay-roll, division No. 10 :

May	\$317.38
June	1,096.64
July	1,409.86
August	2,130.36
September	1,841.87
October	1,873.59
November	819.68
December	661.42
	<hr/>
	\$10,150.80

HARDWARE.

Paid A. N. Clapp, nails, saw blade, powder

\$3.25

Paid Manchester Hardware Co. :

12 picks and handles	14.50
Lanterns, fibre pails, axes	7.25
Tapes and rules, cords, rope	9.46

Spikes, nails	\$9.85	
Shovels	15.75	
Other hardware	10.03	
Paid John B. Varick Co.:		
Picks and handles	32.00	
Shovels	36.80	
4 dozen ruby globes	11.98	
Steel and iron	72.98	
Nails, dipper handles, hammers	16.17	
Barrows	10.50	
Rope, twine	17.59	
Other hardware	72.88	
Paid The Wadleigh Hardware Co.:		
Forcite, fuse, wire	619.00	
Pick handles, picks, shovels	26.50	
Other hardware	38.33	
	<hr/>	\$1,024.82

SEWER PIPE.

Paid Amoskeag Manufacturing Co.	\$522.04	
George D. Goodrich	5,361.46	
	<hr/>	\$5,883.50

MATERIAL, LABOR, ETC.

Paid Amoskeag Manufacturing Co., labor		
painting and paint stock	\$13.06	
Bartlett & Gay, 1 steam drill and		
fittings complete	225.00	
L. B. Bodwell & Co., 3 tons Cum-		
berland coal	18.00	
James Briggs, dippers . . . . .	.60	
Paid Carson Trench Machine Co.:		
1 trench machine, complete	3,250.00	
4 ½-yard tubs	200.00	
Paid Dunlap & Wason Coal Co., 27 tons		
coal	161.25	

Paid Dodge & Straw, 4 pairs rubber boots	\$12.00
W. P. Farmer, 6 pairs rubber boots	19.25
Paid S. C. Forsaith Machine Co.:	
Labor on bolts and drills	12.30
Repairs on steam pump	2.50
Paid Lowell O. Fowler, 3 pairs rubber boots	7.50
J. Hodge, lumber and labor	7.33
C. H. Hutchinson Foundry & Machine Works, cesspool traps, castings, grates, repairs, etc.	1,016.21
A. H. Kittredge, dualin and fuse	168.30
Frank I. Lessard & Co., material	1.16
The Thomas A. Lane Co., Akron pipe, packing, labor, etc.	115.34
Manchester Locomotive Works, grates and castings	43.20
Paid Manchester Heating & Lighting Co.:	
Repairing battery	3.85
2 dippers . . . . .	.50
Paid Moore & Preston, 2 tons Cumberland coal	11.00
Pike & Heald, Akron pipe	8.95
D. M. Poore, 1,970 pounds of Cumberland coal	5.91
George L. Robinson, 1 pair rubber boots	3.75
Ranno Harness Co., pump washers, snaps, manilla rope, labor	2.12
Paid C. H. Thayer:	
7 pairs rubber boots	19.25
Cork sole . . . . .	.10
Paid Wingate & Gould, 8 pairs rubber boots	26.00
	<hr/>
	\$5,354.43
CEMENT, BRICK, STONE, LUMBER.	
Paid Adams & Tasker, 5 barrels cement	\$13.75
Bartlett & Gay, 22,124 feet plank	160.09

Paid Dunlap & Wason Coal Co.:

1,038 barrels cement . . . \$1,264.12

118 barrels cement . . . \$138.85

Less 230 empty sacks re-
turned . . . 28.75110.10

52 barrels cement . . . \$59.80

Less 59 empty sacks returned 7.37

52.43

Paid W. F. Head & Son, 511 M brick . 2,859.50

Paid The Head & Dowst Co.:

2,830 feet spruce . . . 42.45

Lumber and labor . . . 16.90

Paid Clarence R. Merrill, 48 bbls. cement 64.60

George Rief, lumber and labor . 10.00

A. C. Wallace, lumber and labor . 378.26

\$4,972.20

FREIGHT.

Paid Boston & Maine Railroad . . \$39.50

Concord & Montreal Railroad . 398.38

\$437.88

MEDICAL AND SURGICAL.

Paid D. S. Adams, M. D., services attend-
ing Patrick Kendrigan, account of
claim for damages . . . \$28.00I. L. Carpenter, M. D., attendance
on Patrick Kendrigan, settlement
of claim . . . 5.00E. H. Currier, medicines furnished
Patrick Kendrigan, settlement of
claim . . . 8.60

Paid J. A. Jackson, M. D.:

Examination, Patrick Kendrigan . 5.00

Attendance on Patrick Kendrigan, set-
tlement of claim . . . 10.00

Paid M. E. Kean, M. D.:

Surgical consultation, case of Patrick Kendrigan	\$5.00	
Attendance on Patrick Kendrigan, settlement of claim	125.00	
Paid Frederick Perkins, M. D., surgical treatment, case of Augustin Nolette	40.00	
C. F. Starr, M. D., surgical consultations, case of Nolette	6.00	
G. L. Wakefield, M. D., dressing and treatment of Hugh Conroy's hand	5.00	
		<hr/>
		\$237.60

SUNDRIES.

Paid Adams & Tasker, 6 bag strings	\$0.60	
L. M. Aldrich, filing saws	5.15	
Harry J. Briggs, 78 days services, assistant, engineer's office	195.00	
Clark M. Bailey, 20 lbs. wiping waste	2.00	
Paid A. N. Clapp :		
408 gallons oil	28.61	
115 pounds oatmeal	6.25	
Matches, wicks, twine, etc.	3.73	
Paid The John B. Clarke Co., advertising proposals for sewer pipe	8.50	
Frank H. Challis, advertising proposals for sewer pipe	3.90	
J. Choate & Co., repairing damages on E. H. Chadbourne's house, caused by blasting	1.55	
James R. Carr & Co., glass and setting	3.25	
P. Duval, filing saws	6.40	
Lowell O. Fowler, repairing 6 pairs rubber boots	5.00	

Paid A. M. Finney, cleaning and laying carpets damaged by blasting Wal- nut-street sewer	\$3.48	
Leonard Mudgett, oatmeal	15.39	
Henry W. Parker, $\frac{1}{2}$ barrel oatmeal	3.50	
C. H. Simpson, use of teams	6.00	
H. Stratton, repairs on pump . . . .	.50	
Union Publishing Co., advertising proposals for sewer pipe	9.60	
George W. Wales, 30 days' services, assistant, city engineer's depart- ment	75.00	
York Market Co., suet . . . . .	.36	
Harrie M. Young, 30 days' services, assistant, city engineer's depart- ment	82.50	
	<hr/>	\$466.27
Total expenditures		\$52,970.91
Transferred to reserved fund		2,029.09
		<hr/>
		\$55,000.00

Lighting Streets.

Appropriation	\$43,000.00
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EXPENDITURES.

ELECTRIC LIGHTS.

Paid Manchester Electric Light Co.:

	Charges.	Discounts.
January	\$3,150.44	\$4.16
February	3,172.08	12.28
March	3,172.08	10.40
April	3,172.08	7.56
May	3,172.08	8.82

	Charges.	Discounts.
June	\$3,172.08	\$7.87
July	3,172.08	6.93
August	3,223.74	5.67
September	3,241.06	15.75
October	3,292.93	7.56
November	3,342.60	14.80
December	3,439.30	10.40
	<hr/>	<hr/>
	\$38,722.55	\$112.20
Total discounts deducted	112.20	
	<hr/>	
		\$38,610.35
	GAS.	

Paid People's Gas-Light Co.:

January	\$75.88
February	73.92
March	60.76
April	56.84
May	58.10
June	49.28
July	43.96
August	45.78
September	48.02
October	53.20
November	63.42
December	66.78
	<hr/>
	\$695.94

CARE OF GAS AND OIL LAMPS.

Paid People's Gas-Light Co., for lighting, extinguishing, and care of gas and oil street lights:

January	\$140.10
February	142.35
March	126.80
April	135.10
May	144.02
June	142.10

ENGINEER'S DEPARTMENT.

593

July	\$144.27
August	142.10
September	142.10
October	137.95
November	142.80
December	137.70
	<hr/>
	\$1,677.39

SUNDRIES.

Paid Clark M. Bailey :

72 dozen chimneys	\$72.00
7 dozen burners	11.00
5½ dozen B. founts	9.00
wicks, etc.	2.75

Paid F. W. Elliott, oil and lighting street

lamp from July 19, 1893, to De-

cember 31, 1894

22.35

W. J. Freeman, hacks

15.00

C. H. Hutchinson Foundry & Ma-
chine Co., repairing lamplighter .

2.00

Paid People's Gas-Light Co.:

21 barrels kerosene oil	75.71
7 boxes glass	17.77
1 gallon whiskey	2.25
2 gross matches	1.78
Sperm oil, glass cutters, etc.	2.63

Paid Mary Reed, lighting lamp at Massa-

besic from Dec. 1, 1893, to Aug. 1, 1894

6.00

\$240.24

Total expenditures \$41,223.92

Transferred to reserved fund 1,776.08

\$43,000.00

Engineer's Department.

Appropriation	\$4,300.00
Transferred from reserved fund	716.72
	<hr/>
	\$5,016.72

EXPENDITURES.

LABOR.

Paid W. H. Bennett, services as engineer	\$1,200.00	
Mrs. A. G. Bennett, 237 days' labor, clerk	355.50	
J. Edward Baker, 104 days' labor, assistant	182.00	
Harry J. Briggs, 248½ days' labor, assistant	621.25	
George M. Currier, 209½ days' labor, assistant	261.88	
A. H. Sanborn, 39 days' labor, as- sistant	97.50	
Herbert L. Watson, 69½ days' labor, assistant	86.87	
George W. Wales, 277 days' labor, assistant	692.50	
Harrie M. Young, 268 days' labor, assistant	737.00	
	<hr/>	\$4,234.50

TEAM AND TEAM EXPENSES.

Paid Frederick Allen :		
1 saddle pad		\$0.50
1 bit		2.50
1 blanket		7.00
Lettering blanket		2.50
Paid John T. Beach, carriage repairs .	30.40	
Connor & Grossman, shoeing horse	1.25	
W. J. Freeman, use of teams . .	16.25	
Kimball Carriage Co, 2 whips .	2.00	
Manchester Street Railway, car tickets	20.00	
J. B. McCrillis & Son, carriage re- pairs	33.60	

Paid C. H. Simpson, use of teams . . .	\$3.50	
Whitten & Fifield, use of teams . . .	22.50	
	<hr/>	\$142.00

TELEPHONE.

Paid New England Telephone & Telegraph Co., use of telephone	\$36.30
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SUPPLIES AND OFFICE EXPENSES.

Paid W. H. Bennett :	
Cash paid for hooks, brush broom . . .	\$0.37
Cash paid for postage	4.00
Cash paid for 1 Challenge eyelet press and eyelets	3.00
Paid Mrs. A. G. Bennett, cash paid for express . . . . .	.45
Walter Blenus, repairs on tapes . . .	6.65
Barton & Co., 5 yards flannel . . .	1.25
Paid Buff & Berger :	
2 Boston rods	30.00
Repairing instruments, etc.	11.70
Paid The John B. Clarke Co. :	
Making 2 small portfolios	4.00
2 cases for books . . . . .	.50
Binding report . . . . .	.25
Paid E. R. Coburn Co. :	
1 letter copy book	2.00
1 cloth bath	3.25
1 No. 5 letter press	\$6.00
Less 1 No. 4 press returned	2.25
	<hr/>
	3.75
Pens, ink, blotting paper	10.68
Paper, envelopes, blank-books, pencils	8.15
1 basket . . . . .	.75
Other stationery . . . . .	.60
Paid P. C. Cheney Co., 1 piece jacketing	1.20

Paid G. B. Cressey :

Carting guide boards	\$2.00
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Painting signs	4.00
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Paid J. G. Ellinwood, 1 photograph,

Second-street bridge50
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Paid Frost & Adams :

1 roll blue print	4.50
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Paper, cloth, curves, etc.	216.84
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Paid C. A. Hoitt & Co., 2 stools 6.00

Paid J. Hodge :

2,000 pine stakes	18.00
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1,000 chestnut hubs	20.00
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720 feet 2-inch spruce	12.96
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12 hours' labor on same	4.80
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1 drafting board	7.66
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Paid J. J. Holland, 2 pounds chloride

lime30
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The Nate Kellogg Co., 1 M work

blanks	2.75
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Lovejoy & Stratton, 1 clock	5.00
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Paid The Thomas A. Lane Co. :

1 self-lighting burner75
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Labor putting on same25
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Paid Morgan, Crossman & Co. :

1 Bates numbering machine	16.00
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3 stamps	2.80
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Paid J. B. McCrillis & Son, 1 typewriter

ribbon	1.00
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Thomas H. McCollin & Co., 1

curve pen, $\frac{3}{4}$ -inch wheel opis-	
ometer	3.86

E. G. Soltmann, paper and 1 rubbers	7.30
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Irving L. Stickney, 1 rubber mat	2.09
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Joseph St. Laurent, 2,150 grade

pickets	19.35
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The Head & Dowst Co., 18 hours'

labor, office	5.04
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Paid Temple & Farrington Co.:

2 blank books	\$22.00
260 sheets parchment paper	23.00
200 sheets No. 4421 paper	6.75
Pens, cord, erasers, paste, scrap-books	6.87
Ink, record books, wax, etc.	8.63

Paid Union Manufacturing Co., 1,000

1½-inch house numbers	45.00
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Paid John B. Varick Co.:

Twine, emery cloth, rules	2.64
Crayons, floor brush, steel, axes, etc.	6.15
1 pair field glasses	15.00
Other hardware	3.58

Paid C. H. Wood:

Painting rods, pins, targets.	3.50
1 office sign	1.50

Paid George P. Wallace, 1 Remington

typewriter ribbon	1.00
Harrie M. Young, cash paid for postage	2.00

 \$603.92

Total expenditures	\$5,016.72
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Health Department.

Appropriation	\$3,500.00
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EXPENDITURES.

LABOR.

Paid C. W. Downing, M. D., salary as member of board of health for 6 months ending February 1, 1894	\$100.00
Joseph B. Sawyer, salary as member of board of health, for year end- ing February 1, 1894.	200.00

Paid C. F. Starr, M. D., salary as member board of health for year ending February 1, 1894	\$200.00
Richard J. Barry, 203 days' services as plumbing inspector	507.50
Herbert S. Clough, 329 days' labor as health inspector	987.00
John F. Looney, 316½ days' labor as health inspector	702.88
Charles Langmaid, 101 days' labor	202.00

Paid labor, as per pay-roll, in division
No. 2 :

July	11.50	
August	21.75	
	<hr/>	\$2,932.63

PRINTING AND STATIONERY.

Paid Frank H. Challis, printing and binding certificates, notices, blanks, etc.	\$16.00
Paid The John B. Clarke Co.:	
Printing 3,850 bulletins	36.75
1,000 postals, both sides	13.00
300 reports, 28 pages and cover	14.00
3,000 cards, blanks, etc.	53.25
autograph on photograph of Dr. Crosby	.50
Paid E. R. Coburn Co., paper, envelopes, ink, blank books	6.13
Hopkins & Co., 1,000 letter heads, and printing	2.75
Paid Wallace G. Stone:	
2,000 stamped envelopes, and printing	36.00
Printing and binding 1,500 notices and blanks	6.50
Printing 250 circulars	1.25
	<hr/>

TEAMS.

Paid R. J. Barry, horsecar fares . . .	\$29.00	
F. X. Chenette, use of teams . . .	31.00	
Paid Herbert S. Clough, cash paid :		
Teams	1.25	
Horsecar fares	25.70	
Carfare to Massabesic	3.40	
Boat at lake	3.00	
Labor burying horse, moving boat, etc.	1.85	
Paid W. J. Freeman, use of team . . .	2.00	
John F. Looney, horsecar fares . . .	15.95	
Whitten & Fifield, use of teams . . .	31.00	
	<hr/>	\$144.15

HOUSE OF ISOLATION.

Paid Judith Sherer, matron, 7 4-7 weeks'		
board of patients	\$22.72	
building steps, and lumber for same .	2.00	
	<hr/>	\$24.72

OFFICE EXPENSES.

Paid H. S. Clough :		
Postage and envelopes	\$23.05	
Cuspidor, matches, ink, express, etc. .	1.56	
Paid Charles A. Hoitt & Co., 1 desk . .	30.00	
John F. Looney, blank books . . . .	.15	
People's Gas-Light Co., gas	2.38	
George Whitford, 1 cord hard wood .	6.00	
	<hr/>	\$63.14

SUNDRIES.

Paid J. J. Abbott, paint	\$2.98	
Edmund R. Angell, analysis of water .	22.70	
Bailey, Farrell Manufacturing Co.,		
1 smoke test machine	15.00	
H. B. Burnham, M. D., services case .		
French family, McGregerville	2.00	

Paid Burnham, Brown & Warren, legal services	\$18.00	
C. W. Colby, moving bed, etc., 41 Orange street	1.00	
Paid Herbert S. Clough :		
Alcohol, sulphur, lime . . . . .	.78	
Bluing, disinfectants . . . . .	.45	
Witness fee, paid N. P. Kidder . . . . .	.77	
Freight on smoke test machine . . . . .	.50	
Paid The John B. Clarke Co., advertising, 1 column 4 times	35.00	
John F. Looney, alcohol, disinfectants, etc.	1.25	
Manchester Hardware Co., 1 pair oar locks . . . . .	.50	
E. H. Stowe, 8 dinners, 4 horses fed	6.00	
Paid W. H. Tibbetts :		
11 lbs. paint for boat	1.32	
One half day's labor	1.13	
Paid Union Publishing Co., advertising, 3¼ inches 3 times	6.53	
Paid John B. Varick Co.:		
25 pounds sulphur . . . . .	.75	
Padlock, chain, staple . . . . .	.75	
1 pair oars . . . . .	.75	
		<u>\$118.16</u>
Total expenditures		\$3,468.93
Transferred to reserved fund		31.07
		<u>\$3,500.00</u>

Repairs of Schoolhouses.

Appropriation	\$5,000.00	
Transferred from reserved fund	464.67	
		<u>\$5,464.67</u>

EXPENDITURES.

MASONWORK.

Paid B. W. Robinson :		
Plastering, kalsomining, whitewashing, sundry schoolhouses	\$217.49	
Repairing boiler, etc., sundry school- houses	124.67	
Paid Warren Harvey, 5 loads stone, labor, use of tools	37.00	
	<hr/>	\$379.16

PAINTING AND GLAZING.

Paid J. J. Abbott, painting and glazing, sundry schoolhouses	\$219.65	
J. S. Avery, setting glass	7.35	
Paid J. Choate & Co.:		
Glass, and labor setting same	12.93	
Paper	6.75	
Paid William H. Huse, cash paid for painting lines on blackboards	2.50	
C. F. Jack, 15 lights glass, putty, and setting same	2.86	
W. H. Newry, glass and setting same	3.80	
John A. Sargent, painting and glaz- ing, sundry schoolhouses	284.31	
	<hr/>	\$540.15

CONCRETING.

Paid George F. Higgins, patching, re- pairing, and new concrete, Goffe's Falls	\$60.00	
C. H. Robie Concrete Co., concret- ing, Amoskeag, Lowell street	23.11	
J. T. Underhill & Co., concreting, Harvey district, Main street	173.35	
	<hr/>	\$256.46

WOODWORK.

Paid Bobrick School Furniture Co.:	
48 sets No. 1 castings	\$141.60
48 sets No. 2 castings	146.40
Paid G. H. Dudley, lumber, hardware,	
labor	747.25
The Head & Dowst Co., lumber,	
labor, etc.	461.41
Manchester Hardware Co., 1 7-foot	.
pump	3.00
Horace Stearns, lumber and labor,	
on fence	3.50
	<hr/>
	\$1,503.16

PLUMBING AND IRONWORK.

Paid S. C. Austin & Co.:	
118 feet lightning rod, 1 point, addi-	
tion Webster-street	\$49.20
Material and labor repairing rods, sun-	
dry schoolhouses	40.45
Paid F. W. Blood, material and labor re-	
pairing roofs, sundry schoolhouses	322.33
Henry A. Boone, repairing pump,	
Harvey district	1.50
Paid E. M. Bryant & Co.:	
Labor repairing bells, Webster-street .	4.20
Labor and material	5.10
Paid Cressey & Colby, repairing irons for	
furnace	1.25
Peter Harris, repairing locks . . .	.25
The Thomas A. Lane Co., material	
and labor, plumbing, piping, etc.,	
sundry schoolhouses	868.90
Clemens Langer, material and labor,	
plumbing at Main-street . . .	10.15

Paid Manchester Heating and Lighting Co.:	
Labor changing wires, Bakersville	\$1.00
Plumbing material and labor, Training school	74.96
Labor and material, sundry school-houses	335.30
Paid J. B. McCrillis & Son, 1 fire iron . . . . .	.40
Pike & Heald Co., labor on furnace, changing radiators, cleaning stove-pipes, etc.	298.27
	————— \$2,013.26

MISCELLANEOUS.

Paid C. W. Anderson & Co., repairing clocks	\$9.75
D. J. Adams, repairing pencil sharpeners, etc.	6.05
George W. Bailey, use of teams	11.50
Charles F. Cram, building 120 feet fence between residence and Hallsville schoolhouse	16.38
Robert Clark, labor on lawn, Webster street	10.00
Emergency Hand Fire Extinguisher Co., extinguishers	125.00
John T. Gott, cleaning vault	5.00
E. T. James, use of teams	6.00
Hiram W. Moulton, grading Hallsville schoolhouse lot	15.00
Palmer & Garmon, material and labor	19.05
Edward Sears, putting up and taking down flags	8.00
James P. Slattery, repairing clocks	3.85
C. A. Trefethen, repairing clocks	18.50
Gordon Woodbury, 10 loads loam	13.00

Paid P. O. Woodman, 540 feet sod, Halls- ville	\$5.40	
	<hr/>	\$272.48
Total expenditures		\$4,964.67
Transferred to contingent expenses appropriation . .		500.00
		<hr/>
		\$5,464.67

Fuel.

Appropriation	\$5,500.00
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EXPENDITURES.

COAL.

Paid L. B. Bodwell & Co.:		
116 tons egg coal	\$754.00	
41,100 pounds egg coal	133.57	
Paid Dunlap & Wason Coal Co.:		
556 9-50 tons egg coal	2,910.08	
35 tons 1,990 pounds stove coal	210.93	
Paid Moore & Preston, 23 tons egg coal	149.50	
D. M. Poore, 47 15-16 tons coal	311.09	
	<hr/>	\$4,469.17

WOOD.

Paid L. B. Bodwell & Co.:		
2½ cords pine wood, sawed and split	\$14.50	
1 cord hard wood, sawed and split	9.25	
Paid Gilman Clough:		
64½ cords hard wood	338.62	
41 cords pine wood	153.75	
Paid Dunlap & Wason Coal Co., 1½ cords pine wood, sawed and split	9.25	
J. Hodge, 2 loads kindlings	3.50	
Moore & Preston, 4 cords wood, sawed	24.50	
D. M. Poore, 3½ cords pine, cut	19.50	

Paid Luther S. Proctor :

16 cords pine wood	\$64.00	
9 cords hard wood	53.10	
	<u> </u>	\$689.97

SUNDRIES.

Paid Cary F. Abbott, 8 ash sifters	\$54.00	
The John B. Clarke Co., advertising proposals for fuel, 2½ inches, 6 times	10.13	
M. Dana, teaming wood from Low- ell street to Spring street	1.00	
	<u> </u>	\$65.13
Total expenditures		\$5,224.27
Transferred to reserved fund		275.73
		<u> </u>
		\$5,500.00

Furniture and Supplies.

Appropriation	\$700.00	
Transferred from reserved fund	173.21	
	<u> </u>	\$873.21

EXPENDITURES.

PHYSICAL AND CHEMICAL APPARATUS, SUPPLIES, ETC.

Paid E. S. Ritchie & Sons, 1 gyroscope, etc.	\$23.18	
Tebbetts & Soule, chemical supplies,	74.65	
	<u> </u>	\$97.83

HARDWARE.

Paid Manchester Hardware Co., hose, screw hooks, screws, lawn seed, etc.	\$4.56
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Paid Pike & Heald Co., brooms, coal hods, brush, shovels, drinking cups, dustpans, etc.	\$19.30	
Wadleigh Hardware Co., 5 floor brushes	8.49	
John B. Varick Co., lawn mowers, hose, ostrich dusters, wire mats, ash barrels, brooms, baskets, coal hods, etc.	329.46	
	<hr/>	\$361.81

BOOKS AND STATIONERY.

Paid Henry W. Allen, 1 leveling rod, surveying chain	\$10.00	
Boston School Supply Co., 2 Mon- roe's reading charts	14.20	
E. R. Coburn Co., cardboard, splints, kindergarten supplies . .	5.08	
Educational Publishing Co., 1 sub- scription Primary Education from January 1, 1894	1.00	
W. P. Goodman, rubber bands, mu- cilage, envelopes, ink stands, etc.	6.85	
Ginn & Co., 3 charts and easels .	25.45	
Paid J. L. Hammett :		
Carmin ink	9.75	
2 rolls, 5 x 3 feet, blackboards . .	7.07	
Tablets, etc.	2.58	
Paid Kasson & Palmer :		
3 years' subscription for "Education," to January 1, 1895	9.00	
5 copies "Education," back numbers for completing volume	1.75	
Paid E. L. Kellogg & Co., subscription to "Teachers' Institute"	1.00	
Paid Novelty Advertising Co. :		
5 M book loan slips	5.00	

5 M cards, assorted colors	\$6.25	
1 rubber stamp	1.00	
Paid New England Publishing Co. :		
2 years' subscription for "American Teacher," to January, 1895	1.00	
1 year's subscription for "Journal of Education," to January, 1894	2.50	
Paid George S. Perry :		
9 dozen Star ink-wells	18.25	
1 Gem chuck and holder	1.35	
Paid Irving L. Stickney, 2 pecks pegs . . . .	.50	
Temple & Farrington Co., card-board, cutting tape, etc.	6.79	
Paid George P. Wallace :		
1 Remington ribbon . . . . .	.75	
Oil, carbon paper, paper	2.15	
Paid G. F. King & Merrill, 1 globe . . . . .	.94	
Prang Educational Co., models, 1 set solids, express on same	15.26	
	<hr/>	\$155.47

FURNITURE.

Paid C. W. Anderson & Co., clocks	\$17.00	
William H. Elliott & Son, 1 piano cover	2.50	
Paid Charles A. Hoitt & Co. :		
3 bent wood chairs	4.50	
Express (Goffe's Falls) . . . . .	.25	
31 chairs	31.95	
Paid L. H. Josselyn & Co. :		
2 tables, with drawers	5.00	
2 oak chairs	2.50	
2 tables	5.00	
Paid J. Y. McQueston Co., 1 oak teacher's desk	11.50	

Paid New Hampshire Furniture Co.:

25 ½ yards tapestry carpet	\$21.68
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1 roll-top desk	25.00
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Paid Syndicate Furniture Co., making 6

shades	3.50
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Temple & Farrington Co., 6 shades	
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and making	3.30
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Paid United States Furniture Co.:

1 desk	\$17.00
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Less freight and cartage96
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16.04

2 desks	\$22.00
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Less freight and cartage	1.34
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20.66

2 No. 77 desks	\$22.00
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Less freight92
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21.08

Paid Weston & Hill Co., carpet made,

laid, etc.	7.95
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\$199.41

SUNDRIES.

Paid Barton & Co., 10 lbs. wrapping paper	\$0.80
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Frank Fitts, braid, whisk broom65
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Paid Tilton F. Fifield:

Soap	2.91
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Oil, oil tanks	2.99
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Paid J. J. Holland, chloride of lime, sal

ammoniac45
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H. J. Holmes, soap and oil80
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A. A. Jenkins, tuning pianos and	
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repairs	10.50
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John A. Kane, oil, soap, ammonia	1.71
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Joseph Lewis, reseating chairs	2.75
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The Thomas A. Lane Co., 1 electric	
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portable lamp, green shade, hold-	
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er, etc.	5.20
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R. McQuarry, 24 wash basins	1.67
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Paid F. E. Nelson :

3 1-6 dozen stone jars	\$7.60	
Tooth picks, oilcloth, scissors . .	1.75	
Paid The Head & Dowst Co., lumber and labor	17.83	
York Market Co., 6 gallon jugs . .	1.08	
	<hr/>	\$58.69
Total expenditures		<hr/> \$873.21

Books and Stationery.

Appropriation \$200.00

EXPENDITURES.**SUNDRIES.**

Paid The John B. Clarke Co., 2½ reams paper	\$4.00	
Paid E. R. Coburn Co.:		
Paper, cardboard	1.50	
41 note books, other stationery . .	4.61	
Paid Daniels & Downs, 1 ream No. 416 paper	1.55	
Paid W. P. Goodman :		
Ink and ink-stands	3.95	
Paper and envelopes	7.53	
Rubber bands, other stationery . .	5.29	
Paid S. S. Piper, postmaster, postage and postal cards	10.00	
Smith & White Manufacturing Co., 8 M envelopes	6.99	
Temple & Farrington Co., 1 blank book, canvas cover	10.50	
	<hr/>	\$55.92
Total expenditures		<hr/> \$55.92
Transferred to reserved fund		144.08
		<hr/> \$200.00

Printing and Advertising.

Appropriation \$350.00

EXPENDITURES.**SUNDRIES.**

Paid The John B. Clarke Co., printing :

400 reports, 80 pages and cover . . . \$41.50

High school graduation tickets . . . 4.50

Report cards, circulars, blanks, examination papers, orders, etc. . . . 245.18

Binding 18 volumes 20.05

Paid A. S. Campbell & Co., printing 115

note circulars85

\$312.08

Total expenditures \$312.08

Transferred to reserved fund 37.92

\$350.00

Contingent Expenses.

Appropriation \$1,100.00

Transferred from repairs of schoolhouses

appropriation 500.00

\$1,600.00

EXPENDITURES.**FREIGHT AND CARTAGE.**

Paid Frank P. Colby, moving High school

grand piano to and from Opera

House \$6.00

J. G. Jones, freight and truckage,

school furniture, chairs, text-

books, etc. 63.11

Benjamin Plumer, cartage of settees

.50

\$69.61

WATER, GAS, AND ELECTRIC LIGHTS.

Paid board of water commissioners, use of water	\$509.40	
Manchester Electric Light Co., electric lights	9.80	
The Electric Co., electric lights	24.00	
Union Electric Co., electric lights	18.85	
People's Gas-Light Co., gas	230.02	
	<hr/>	\$792.07

ANNUAL GRADUATION.

Paid Barton & Co.:		
427 $\frac{3}{4}$ yards cambric	\$17.11	
Thread . . . . .	.06	
Paid Frank W. Fitts, 57 $\frac{1}{2}$ yards ribbon	4.03	
E. W. Harrington, rent of Opera House	50.00	
Wm. Heron, Jr., writing diplomas	44.05	
John Robbie Co., ribbon for diplomas	13.24	
	<hr/>	\$128.49

OFFICE OF SUPERINTENDENT AND SCHOOL COMMITTEE.

Paid S. S. Piper, postmaster, postage stamps	\$10.00
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SUNDRIES.

Paid W. E. Buck :	
Freight, telegrams, etc.	\$26.21
Carriage hire, visiting schools	76.00
Paid Sam N. Boyce, clearing school yard, Harvey district	1.50
Robert Clark, 12 hours' labor on lawn	1.80
Paid Emma J. Ela, cash paid :	
For carrying water 12 weeks	13.00

For putting in wood, etc.	\$0.75	
Paid John T. Gott, cleaning vaults	44.00	
Ginn & Co., 75 coda	1.35	
Hartford Steam Boiler Inspection & Insurance Co., insurance policies	320.00	
A. A. Jenkins, tuning pianos	18.00	
Chas. A. Hoitt & Co., use of chairs	4.00	
N. W. Laflotte, posting cards	2.00	
pay-roll, division No. 2	21.62	
	<hr/>	\$530.23
Total expenditures		\$1,530.40
Transferred to reserved fund		69.60
		<hr/>
		\$1,600.00

Care of Rooms.

Appropriation	\$4,400.00	
Transferred from reserved fund	49.15	
	<hr/>	\$4,449.15

EXPENDITURES.

JANITORS OF SCHOOLHOUSES.

Paid J. S. Avery	\$600.00
H. G. Batchelder	450.00
James E. Bailey	170.04
E. P. Cogswell	487.52
William F. Conner	412.51
Merton Coleman	39.00
Henry C. Dickey	300.00
D. S. Dunbar	29.50
Henry P. Dobbins	30.50
Emma J. Ela	46.12
Charles F. Jack	312.48
William H. Morrill	362.51
William H. Newry	506.22

EVENING SCHOOLS.

613

Paid Almon Proctor	\$30.75	
John O. H. Smith	17.00	
William Stevens	450.00	
Inez M. Warren	40.25	
C. M. Whiting	150.00	
	<hr/>	\$4,434.40
Paid Robert Clark, labor 2 men, 1½ days, Webster street	\$6.00	
Mrs. Herbert and Anne Fox, clean- ing schoolhouses	3.75	
Mrs. B. Firkinwort, cleaning Goffe's Falls schoolhouse	5.00	
	<hr/>	\$14.75
Total expenditures		<hr/> \$4,449.15

Evening Schools.

Appropriation	\$1,200.00
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EXPENDITURES.

SALARIES.

Paid Etta F. Boardman, 67 evenings .	\$134.00	
Gertrude A. Burns, 27 evenings .	24.30	
Honorie J. Crough, 70 evenings .	70.00	
L. H. Carpenter, 70 evenings .	154.00	
Charles E. Cochran, 70 evenings .	154.00	
Lottie M. Clement, 28 evenings .	25.20	
Mary A. Clement, 8 evenings .	7.20	
Isabel Esty, 47 evenings .	54.00	
Lizzie D. Hartford, 35 evenings .	35.00	
Maggie G. Linen, 57 evenings .	51.30	
Arthur W. Morgan, 52 evenings .	70.00	
William J. Mooar, 42 evenings .	42.00	
Annie R. Morison, 3 evenings .	2.70	
Hattie S. Tuttle, 25 evenings .	22.50	
Mary A. Walker, 18 evenings .	16.20	
	<hr/>	\$862.40

JANITORS.

Paid William F. Conner	\$24.00	
William H. Morrill	18.40	
	<hr/>	\$42.40

SUNDRIES.

Paid The John B. Clarke Co., printing		
100 placards	\$3.50	
J. G. Jones, carting tables and chairs	3.50	
Clemens Langer, stovepipe, labor .	2.50	
Pike & Heald Co., gas-pipe and la-		
bor, city hall	17.94	
B. W. Robinson, stock and labor re-		
pairing plastering, city hall .	3.37	
	<hr/>	\$30.81
Total expenditures		\$935.61
Transferred to reserved fund		264.39
		<hr/>
		\$1,200.00

Teachers' Salaries.

Appropriation	\$63,000.00	
Transferred from reserved fund . .	151.03	
	<hr/>	\$63,151.03

EXPENDITURES.

Paid teachers, as per pay-rolls :

January	\$5,939.61	
February	6,223.85	
March	6,134.02	
April	6,158.45	
May	6,185.48	
June	6,267.27	
September	6,439.36	
October	6,542.62	
November	6,793.59	
December	6,466.78	
	<hr/>	\$63,151.03

Evening School of Mechanical Drawing.

Appropriation	\$550.00
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EXPENDITURES.

SALARIES.

Paid Henry W. Allen, services	.	.		\$190.00	
John M. Kendall, services	.	.		190.00	
				<hr/>	\$380.00

JANITOR.

Paid William H. Morrill, services	\$19.20
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SUNDRIES.

Paid E. R. Coburn Co.:					
15 T squares	\$7.20
2 reams drawing paper	36.00
				<hr/>	\$43.20
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Total expenditures	\$442.40
Transferred to reserved fund	107.60
					<hr/>
					\$550.00

Free Text-Books.

Appropriation	\$4,500.00
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EXPENDITURES.

FREE TEXT-BOOKS AND SUPPLIES.

Paid Allyn & Bacon	\$26.65
American Book Co.	748.92
Boston School Supply Co.	.	.	.	.	12.70
T. H. Castor & Co.	.	.	.	.	54.41
W. G. Colesworthy	.	.	.	.	10.25
P. P. Caproni & Brother	.	.	.	.	8.44
DeWolfe, Fiske & Co.	.	.	.	.	2.00

Paid Educational Publishing Co. . . .	\$87.67
Estes & Lauriat	10.20
Ginn & Co.	499.60
Greenough, Adams & Cushing . . . .	.25
Houghton, Mifflin & Co.	197.41
J. L. Hammett	164.40
The Holden Patent Book Cover Co. . . .	49.00
D. C. Heath & Co.	66.43
William R. Jenkins	8.00
G. F. King & Merrill	440.26
C. H. Kimball	5.60
Lee & Shepard	65.27
Longmans, Green & Co.	15.12
Leach, Shewell & Sanborn	3.75
Library Bureau	7.75
Maynard, Merrill & Co.	29.38
Mead, Dodge & Co.	4.65
Alfred Mudge & Son	18.00
The Prang Educational Co.	509.83
George S. Perry & Co.	214.98
Silver, Burdett & Co.	24.35
Smith & White Manufacturing Co. . . .	284.57
Thompson, Brown & Co.	42.00
The Werner Co.	3.20
University Publishing Co.	20.00
William Ware & Co.	357.82
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	\$3,992.86

LABOR.

Paid Fannie L. Sanborn, services as clerk in superintendent's office	\$491.50
	<hr/>
Total expenditures	\$4,484.36
Transferred to reserved fund	15.64
	<hr/>
	\$4,500.00

Manual Training.

Appropriation \$1,500.00

EXPENDITURES.

Paid Fred E. Browne, services as teacher \$1,075.60

Bixby & Wilson, 9 drafting boards 2.52

Concord Foundry Co., 10 iron cast-
ings 1.35

Concord Machine Co., labor on
levers65

E. R. Coburn Co., 1 roll blue print 1.75

Paid Head & Dowst Co.:

7 carpenters' benches, 70.00

Lumber and labor 151.15

Hanover-street Laundry, laundry
work 1.25

Manchester Electric Light Co., elec-
tric lights 3.20

D. A. Simons, 1 table 2.50

Paid Temple & Farrington Co.:

1 roll blue print 1.75

50 sheets cardboard 2.25

cutting paper 1.25

one half gross tacks 1.13

Paid John B. Varick Co.:

17 Bailey planes 18.00

21 saws 23.71

Rules 20.70

Chisels, hammers, bits, bevels, etc. . 68.78

————— \$1,447.54

Total expenditures \$1,447.54

Transferred to reserved fund 52.46

————— \$1,500.00

City Library.

Balance from last year unexpended . \$3,244.38

Appropriation 4,500.00

————— \$7,744.38

EXPENDITURES.

LIBRARIAN AND ASSISTANTS.

Paid Mrs. M. J. Buncher, librarian, to	
April 1, 1894	\$199.98
Kate E. Sanborn, librarian, from	
March 25, 1894	712.50
James A. Buncher, assisting librarian	81.25
John H. Colby, assistant	3.40
George R. Fletcher, assistant	342.00
A. C. Fitzpatrick, assistant	39.10
Fred A. Foster, assistant	104.30
Leonard A. Kebbon, assistant	23.05
C. W. McCoy, assistant	3.65
	<hr/>
	\$1,509.23

CATALOGUE AND CATALOGUE SUPPLIES.

Paid C. A. Cutter :	
1 Ex. classification	\$4.00
1 Cutter order table	1.25
1 Sanborn order table	1.00
Postage . . . . .	.63
Paid The John B. Clarke Co., printing	
1,000 catalogues, covers, etc.	424.73
Paid Library Bureau :	
Index cards	51.90
15 tray slip cases	23.00
Shelf sheets, etc.	27.30
Paid Louise E. Newell, copyist	179.33
Emma A. H. Piper, assisting on	
card catalogue	12.80
Edith O. Simmons, copyist	237.90
Temple & Farrington Co., slips,	
blanks, cards, etc.	63.95
	<hr/>
	\$1,027.79

BINDING, REBINDING, AND RESEWING.

Paid Temple & Farrington Co.	\$296.04
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NEW BOOKS.

Paid trustees of city library \$1,000.00

WATER, GAS, FUEL, INSURANCE.

Paid Water-Works, use of water . . \$16.00

People's Gas-Light Co., gas . . 230.30

Paid L. B. Bodwell & Co.:

½ cord pine slabs 2.50

3 cords hard wood 22.50

Paid Clough & Twombly, premium on
\$10,000 insurance on contents of
library, Ætna and N. H. Insurance

Co. 125.00

 \$396.30

NEWSPAPERS.

Paid The John B. Clarke Co., for "Daily Mirror and
American" to April 1, 1894 \$6.00

SUNDRIES.

Paid L. B. Bodwell & Co., 10 pounds
ice daily, May 3 to Oct. 31 . . \$7.15

The John B. Clarke Co., printing
200 reports 11.00

Paid The Thomas A. Lane Co.:

Labor on frozen water pipes . . 2.10

Burner, shade, chimney, etc. . . 2.40

Paid Charles F. Livingston, printing 12,-
000 covers 12.00

Paid Temple & Farrington Co.:

500 postals and printing . . . 6.50

Envelopes and paper 2.15

Hanging pictures, cord, and wire . 1.65

Paid U. D. Tenney, varnishing portraits 3.00

 \$47.95

Total expenditures \$4,283.31

Balance transferred to new account . . . 3,461.07

 \$7,744.38

Fire Department.

Appropriation	\$50,000.00	
Transferred from reserved fund	3,539.72	
	<hr/>	\$53,539.72

EXPENDITURES.**SERVICES.**

Paid Thomas W. Lane, chief engineer	\$1,300.00	
Fred S. Bean, assistant engineer	125.00	
Ruel G. Manning, assistant engineer	125.00	
Eugene S. Whitney, assistant engineer	125.00	
Clarence D. Palmer, assistant engineer	125.00	
Fred S. Bean, clerk	25.00	
	<hr/>	\$1,825.00

Paid teamsters and engineers, as per pay-rolls :

January	\$1,959.95	
February	1,920.68	
March	1,900.14	
April	1,893.43	
May	1,906.93	
June	1,893.87	
July	1,949.69	
August	1,969.94	
September	2,002.12	
October	1,980.19	
November	1,989.19	
December	1,954.87	
	<hr/>	\$23,321.00

CALL MEMBERS.

Paid Amoskeag Steam Fire Engine Co. :

For year 1894	\$1,150.00
Extra labor	10.00

Paid N. S. Bean Steam Fire Engine Co. :

For year 1894	1,150.00
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Extra labor	\$10.00
Paid Chemical Engine Co. :	
For year 1894	325.00
Paid Excelsior Hook-and-Ladder Co. :	
For year 1894	1,268.31
Extra labor	10.00
Paid Fire King Steam Fire Engine Co. :	
For year 1894	1,140.00
Extra labor	10.00
Paid Fulton Engine and Ladder Co. :	
For year 1894	1,660.00
Extra labor	10.00
Paid Massabesic Hose Co. :	
For year 1894	1,145.00
Extra labor	10.00
Paid Merrimack Steam Fire Engine Co. :	
For year 1894	1,543.03
Extra labor	10.00
Paid Pennacook Hose Co. :	
For year 1894	1,145.00
Extra labor	8.00
Paid General Stark Steam Fire Engine Co. :	
For year 1894	1,276.66
Extra labor	10.00
	<hr/> \$11,891.00

OTHER LABOR.

Paid J. Newell Brown, 72 days' labor .	\$162.00
Cavanaugh Brothers, use of horses for Ladder No. 6	94.50
John Martin, error in Co. No. 2 pay-roll	2.16
Paid Ralph C. Mitchell:	
21 days' labor as driver	31.50
5 nights' care sick horse	7.50

Paid Frank O. Moulton, fourteen days'	
labor as driver	\$21.00
Alcide Provencher, 4 days' labor	9.00
E. V. Rowe, 6 days' labor	10.50
Benjamin Richardson, 28 days' labor as driver	42.00
Paid Edward Sargent:	
14 days' labor as driver	21.00
Labor as machinist to September 4	2.05
Paid Frank W. Tibbetts, 68 days' labor as driver	
	102.00
Charles Woods, 14 days' labor as driver	21.00
Charles J. Wiley, 17 days' labor as driver	25.50
	<hr/>
	\$551.71

Paid labor, as per pay-roll, division No. 2 :

January	\$12.00
February	18.00
March	3.00
	<hr/>
	\$33.00

LAUNDRY.

Paid Mrs. Richard Galway	\$38.05
Mrs. G. M. Goodwin	43.50
Mrs. M. H. Hulme	84.40
Margaret Powers	17.50
Mrs. C. C. Tinkham	23.46
Mrs. W. F. Wheeler	13.35
	<hr/>
	\$220.26

FURNITURE, ETC.

Paid Charles A. Hoitt & Co. :

6 comforters	\$9.00
3 pairs pillows	4.50
8 chairs	14.80
3 mattresses	7.50

3 beds and bureaus	\$34.50
3 springs	8.25
Paid J. Y. McQueston Co. :	
2 wardrobes	26.00
4 chairs	4.00
2 springs	5.00
5 bureaus, beveled glass	42.50
Quilts, pillows, mattresses, beds, bureaus, etc.	52.25
Paid D. A. Simons :	
8 cuspidors	6.00
Mugs, stools . . . . .	.81
Paid Temple & Farrington Co., window curtains, fixtures, and hanging same	
	16.10
Paid Weston & Hill Co.:	
3 spreads	3.28
3 dozen cases	7.08
7 dozen sheets	15.00
130 yards crash	16.25
5 yards silesia	1.25
5 $\frac{1}{3}$ yards matting and ends	4.72
12 towels	1.50
5 rugs	9.05
	<hr/>
	\$289.34

PRINTING AND STATIONERY.

Paid The John B. Clarke Co., printing	
400 reports, 62 pages and cover	\$37.00
Paid Nate Kellogg :	
325 postals and printing	6.25
200 running cards	2.75
1,500 official running cards, bound	65.50
Rosters, note circulars, blank returns, etc.	25.50
Paid W. E. Moore, printing circulars	
C. P. Trickey, ink and stationery	5.53
Paid Temple & Farrington Co.:	
3 dozen pencils	1.50

1 gross rubber bands	\$0.19	
Other stationery . . . .	.88	
	<hr/>	\$148.10

WATER, GAS, ELECTRIC LIGHTS, TELEPHONE.

Paid Water-works, use of water . . .	\$506.04	
People's Gas-Light Co., gas . . .	1,044.96	
The Electric Co., electric lights, Fulton engine house	28.40	
Union Electric Co., electric lights, Fulton engine house	23.30	
N. E. Telephone & Telegraph Co., use of telephones	255.96	
	<hr/>	\$1,858.66

FUEL.

Paid L. B. Bodwell & Co.:		
15 tons cannel coal	\$240.00	
25 tons egg coal	162.50	
6 cords pine slabs, sawed	33.00	
Paid Dunlap & Wason Coal Co., 145 $\frac{16.5}{200}$		
tons egg coal	775.37	
Stephen Gardner, splitting wood .	10.00	
Lester Hall, 9 $\frac{1}{2}$ cords pine wood .	42.75	
S. S. Young, sawing and splitting wood	12.00	
	<hr/>	\$1,275.62

FREIGHT AND TRUCKAGE.

Paid Concord & Montreal R. R., freight	\$2.73	
James Reid, truckage	1.00	
John W. Wilson, truckage	4.65	
	<hr/>	\$8.38

SUPPLIES.

Paid Clark M. Bailey :		
3 cases toilet paper	\$30.00	
1 bale waste	72.80	
Paid Cavanaugh Brothers, 6 horses . .	1,200.00	

Paid A. V. Chase & Co., 12 "Burni- shine"	\$7.34
Paid Boston Woven Hose & Rubber Co.:	
3 mats	22.50
9 suction hose washers	2.25
Paid C. G. Braxmar, 20 nickel badges .	12.00
Boston Belting Co., 10 pure rings .	1.18
J. A. & W. Bird, 1 barrel bicarbon- ate of soda	15.68
The Champion Flue Scraper Co., 1 scraper	4.50
Paid Cornelius Callahan Co.:	
Repairing hose, pony nozzle	2.50
2 Hale collars and hames	55.00
2 Regan hooks and poles	20.00
12 cotton H. and L. straps	12.00
1 Chemical hose nozzle	2.75
Paid Combination Ladder Co., 1 pair of safety locks	25.00
A. N. Clapp, oil, etc.	5.33
Eureka Fire Hose Co., 2,000 feet 2½-inch Surprise hose	1,260.00
Tilton F. Fifield, 3 gross matches .	1.95
Fire Extinguisher Manufacturing Co., 3 rubber valves . . . . .	.33
D. M. Goodwin, 24 stable brooms .	9.50
Paid S. F. Hayward & Co.:	
3 white rubber coats	20.25
1 gross pony bottles	9.00
1 pony	4.45
Paid A. S. Jackson:	
12 hose suspenders	6.00
6 squilgees	7.50
Paid Kimball Carriage Co.:	
2 exercise wagons	560.00
2 fire gongs	25.00

Paid The Thomas A. Lane Co.:

Hose bands, couplings, etc. . . . \$7.38

2 gas stoves 1.74

Paid Andrew J. Morse & Son, 1 double

hydrant gate 22.50

New England Gamewell Co., 1 6-

inch gong 30.00

Paid Plumer & Holton:

18 reefers 157.50

26 pairs overalls 39.00

Paid Pike & Heald Co., lantern globes . 1.57

L. L. Reilly, 20 hat badges . . . 13.00

I. L. Stickney, rubber cloth . . . 1.08

Talbot Dyewood & Chemical Co.,

848 lbs. bicarbonate soda . . . 30.80

Union Oil Co., 1 gallon chloro-

naphtholeum 1.50

J. H. Wiggin & Co., ammonia, su-

gar, etc. 7.70

\$3,708.58

PLUMBING, REPAIRS, ETC.

Paid L. M. Aldrich, lumber and labor . \$1.14

Blanchet & Co., 10¼ lbs. paint . 1.34

Boston Belting Co., repairing suc-

tion hose 5.95

Paid James R. Carr & Co.:

Glass and setting 2.30

Paint, brushes, etc. 16.87

Paid S. C. Forsaith Machine Co., 2 bar-

rels sawdust20

A. M. Finney, cleaning and laying

carpets 7.15

The Head & Dowst Co., lumber

and labor 43.03

J. Hodge, lumber and labor, sundry

engine houses 29.91

Paid C. H. Hutchinson Foundry & Machine Co.:

230 pounds castings	\$8.05
Eye bolts and pattern75

Paid Thomas A. Lane Co., material and labor	52.72
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Paid Manchester Locomotive Works:

1 steel gong bell	5.50
2 brass pole covers	2.00
1 horse pole	7.50
1 single pressure gauge stand	1.00
Repairs, etc.	102.58

Paid Pike and Heald Co., material and labor	10.65
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George W. Reed, repairing suction hose	2.50
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Truax & Truax, 8 iron castings	6.96
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C. A. Trefethen, repairing clocks	1.75
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A. C. Wallace, lumber, Fire King engine house	11.10
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John K. Wilson, labor on closet	1.50
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\$322.45

HARDWARE.

Paid Manchester Hardware Co.	\$61.03
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John B. Varick Co.	109.16
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Wadleigh Hardware Co.	160.85
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\$331.04

MEDICAL, SURGICAL, INSURANCE.

Paid A. W. Baker, dentistry, 19 horses	\$38.00
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J. A. Charest, V. S., visits and medicine	53.25
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Z. Foster Campbell, medicines	13.45
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N. Chandler, 12 cans hoof ointment	9.00
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E. H. Currier, 12 boxes Williams's Sure Cure	7.00
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Paid J. L. Golden, V. S.:

Medicine	\$40.97	
Boarding horses	16.00	
Paid John F. Kerwin, 1 barrel Peel's food	7.50	
W. B. Mitchell, 1/2 dozen witch hazel tonic	1.75	
Snelling & Woods, medicine	23.55	
S. M. Worthley, vinegar, salt, mustard, ginger, etc.	2.22	
Security Live Stock Insurance Co., fees and assessments on policies	615.89	
	<hr/>	\$828.58

CARRIAGE WORK AND REPAIRS.

Paid Couch & McDonald, carriage hard-

ware	\$27.65	
A. Fillion, repairing carriage	58.00	
I. Grant, repairing pung sleigh	5.00	
S. S. Joy, 2 wagon jacks	5.50	
J. B. McCrillis & Son, carriage repairs	452.70	
Sanborn Carriage Co., carriage repairs	51.28	
	<hr/>	\$600.13

BLACKSMITHING.

Paid Joseph Breault	\$67.85	
J. M. Brouillette	146.35	
D. F. Cressey	136.58	
Cressey & Colby	6.25	
John E. Davis	65.80	
Davis & Thompson . . . . .	.75	
Thomas Hickey	33.50	
Mahaney & McSweeney	458.25	
D. B. Thompson . . . . .	.75	
	<hr/>	\$916.08

FIRE DEPARTMENT.

629

HAY, GRAIN, ETC.

Paid Adams & Tasker	\$255.35	
Joel F. Austin	35.91	
William Clark	214.39	
Mrs. Carrie F. Corliss	9.20	
P. Doyle	32.98	
Milton Flint	17.34	
J. L. Fogg	23.59	
Gage & McDougall	883.06	
H. R. Hall	53.49	
Melvin Hall	42.94	
J. B. Huse	14.77	
Clarence R. Merrill	2,171.67	
H. F. Miller	28.00	
Henry W. Parker	253.28	
Partridge Brothers	536.74	
J. N. Vasseur	116.82	
	<hr/>	\$4,689.53

HARNESSES AND HARNESS REPAIRS.

Paid W. H. Adams, harnesses and repairs	\$245.15	
Frederick Allen Co., repairs, etc. .	35.95	
W. E. Greeley, repairing bridles, etc. . . . .	.75	
Paid Kimball Carriage Co.:		
1 nose and jaw strap	1.75	
1 head check	2.00	
1 leather cushion	5.00	
Paid C. N. Perkins, 6 No. 4 snaps . .	9.00	
Paid Ranno Harness Co.:		
1 pair swing harnesses	100.00	
Blankets and hoods	44.00	
Repairs, etc.	162.57	
Paid Underhay Oil Co., 5 gallons har- ness oil	6.00	
	<hr/>	\$612.17

SUNDRIES.

Paid The Daniels-Cornell Co., 5 boxes soapine	\$16.25	
Flint & Little, filing and setting saws . . . . .	.30	
Peter Harris, keys and filing saw . . . . .	.75	
Paid Thomas W. Lane :		
Expenses to Montreal to attend National Association of Fire Engineers	36.25	
Postage on annual reports	4.00	
Express on supplies	11.19	
Paid F. W. Leeman, 3 lights glass and sash, broken by hook-and-ladder	13.00	
Paige & Myrick, rubber stamp for linen . . . . .	.50	
G. W. Reed, pasturing horse 7 weeks	7.00	
George E. Richards, 1 gallon alcohol	2.85	
Hartley E. Vaughan, burying 2 horses	8.00	
	<hr/>	\$100.09
Total expenditures		\$53,530.72
Ralph Mitchell, services as driver, bill disallowed, money turned into treasury		9.00
		<hr/>
		\$53,539.72

Fire-Alarm Telegraph.

Appropriation	\$1,400.00	
Transferred from reserved fund	533.88	
	<hr/>	\$1,933.88

EXPENDITURES.

LABOR.

Paid labor of men, as per pay-roll :	
January	\$78.00

February	\$62.00
March	65.00
April	82.50
May	78.00
June	70.25
July	74.75
August	76.75
September	52.50
October	54.25
November	50.75
December	49.00

\$793.75

Paid W. B. Corey & Co., labor on wire
and poles \$46.50

Paid Flint & Little :

Filing saw35

Putting on Yale lock38

Paid E. A. Sears, labor on fire-alarm . 5.00

John K. Wilson, labor on fire-alarm
standures 1.50

\$53.73

SUPPLIES.

Paid Amoskeag Manufacturing Co.:

1 standure for electric wire . . . \$7.25

Labor60

Paid American Electrical Works :

502 feet Americanite 10.05

Spools wound and repaired . . . 2.40

Paid The James Baldwin Co., 300 plain

pins 3.00

Paid J. H. Bunnell & Co.:

50 jars 8.33

5¼ pounds tape 3.47

Insulators, buttons, etc. 24.15

Paid James R. Carr & Co.:

1 tin sign50

Paint and brush	\$3.34	
Glass and setting . . . . .	.75	
Paid The Electric Gas-Lighting Co.:		
2 extension bells	7.00	
1 receiver, and box	1.35	
Paid W. A. Heselton, 25 telegraph poles	68.75	
J. Hodge, lumber and labor . . .	15.20	
Morgan, Crossman & Company, 3		
rubber stamps	2.25	
The Thomas A. Lane Co., pipe . .	5.50	
Paid New England Gamewell Co.:		
1 standard galvanometer	12.00	
1 indicator, with 15-inch gong com-		
bined	250.00	
2 automatic signal boxes	250.00	
Repairing fire-alarm boxes	14.45	
Paid J. B. Prescott & Son, 150 standard		
zincs	35.45	
Pike & Heald Co., tin, copper, etc.	1.75	
Talbot Dyewood & Chemical Co., 6		
barrels blue vitriol	106.43	
John B. Varick Co., hardware . .	10.50	
D. B. Varney, zinc castings . . .	198.10	
Wadleigh Hardware Co., brush,		
stake chains, washers, etc. . . .	1.55	
Washburn & Moen Manufacturing		
Co., wire	35.53	
	<hr/>	\$1,079.65
FREIGHT AND TRUCKAGE.		
Paid W. B. Corey & Co., trucking chairs,		
etc.	\$6.25	
Concord & Montreal R. R., freight	.50	
	<hr/>	\$6.75
Total expenditures		\$1,933.88

Hydrant Service.

Appropriation \$13,925.00

EXPENDITURES.

Paid Water-Works, rent of 557 hydrants . . . \$13,925.00

Police Department.

Appropriation \$40,400.00

EXPENDITURES.**SERVICES.**

Paid N. P. Hunt, police justice . . .	\$1,500.00
Isaac L. Heath, associate justice . .	375.00
John C. Bickford, clerk . . .	600.00
Michael J. Healy, chief of police . .	900.00
John F. Cassidy, deputy chief of police	800.00
regular patrol	27,542.16
extra time of regular patrol . . .	1,575.10
special patrol	784.05
C. B. Hildreth, private detective . .	322.00
Frank P. Wiggin, janitor . . .	638.75
Miss A. B. Brown, matron . . .	414.00
	————— \$35,451.06

WATER, GAS, ELECTRIC LIGHTS, FUEL.

Paid Water-Works, use of water at station, Clinton-street, and Slayton house	\$183.87
People's Gas-Light Co., gas . . .	73.92
The Electric Company, electric lights	180.00
Union Electric Company, electric lights	187.40
Paid L. B. Bodwell & Co.:	
3 tons egg coal	18.75

1/2 cord wood	\$4.00	
Paid DeCourcy, Holland & Marshall :		
74,965 pounds egg coal	243.63	
3 tons egg coal	19.50	
1 1/2 cords pine wood, cut	9.00	
Paid DeCourcy & Holland :		
10,090 pounds coal	32.79	
3 tons egg coal	19.50	
1 1/2 cords wood	10.00	
Paid Dunlap & Wason Coal Co.:		
29,640 pounds egg coal	77.51	
47 tons 600 pounds egg coal	247.38	
	<hr/>	\$1,307.25

TELEPHONE AND TELEGRAPH.

Paid New England Telephone & Tele-		
graph Co., use of telephones	\$211.38	
Western Union Telegraph Co., tele-		
grams	9.51	
	<hr/>	\$220.89

TEAMS.

Paid G. W. Bailey	\$2.50	
Boyd Brothers	2.00	
Joseph Breault	1.50	
W. J. Freeman	237.25	
E. T. James	165.00	
J. C. Nichols & Son	1.00	
C. H. Simpson	2.00	
	<hr/>	\$411.25

FEEDING AND CONVEYING PRISONERS.

Paid Daniel Davis, rations furnished to		
December 20, 1894	\$290.55	
W. D. Ladd & Co., 766 lbs. crackers	38.18	
Healy & Cassidy, conveyance of		
prisoners	1,010.00	
	<hr/>	\$1,338.73

PRINTING, ADVERTISING, AND STATIONERY.

Paid A. S. Campbell & Co., printing :

Civil dockets	\$60.50
3,000 writs	48.50
2,500 liquor warrants	25.00
1,300 copies "record of judgments"	6.00
Envelopes, etc.	20.25

Paid Frank H. Challis :

Printing 500 application blanks	10.25
Advertising Fourth of July	2.00

Paid The John B. Clarke Co., printing :

Blank book	12.50
Civil docket, court record	24.00
130 certificates	10.50
1,500 letter heads	6.00
Blanks, etc.	18.25

Paid W. P. Goodman :

Record books	5.89
Diaries and pencils	25.50
1 time book, to order	5.50
Waste basket . . . . .	.63
Envelopes, ink, etc.	5.85

Paid Star Stamp Co., 1 handled stamp
and pad

2.00

Temple & Farrington Co., ink, mu-
cilage, penholders, blocks, etc.

16.96

\$306.08

MEDICAL, SURGICAL, AND SANITARY.

Paid G. W. Bailey :

Use of horse and driver for ambulance	\$8.25
Storage and care of ambulance	12.00

Paid F. X. Chenette, burying horse 5.00

I. L. Carpenter, M. D., surgical and
medical treatment of sundry per-
sons

12.00

Paid J. J. Holland :

1 carboy aqua ammonia	\$10.32
Cotton, carbolic oil	8.17

Paid M. E. Kean, M. D., professional services

C. W. Lerner & Co., disinfectants .	14.95
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Frederick Perkins, M. D., surgical and medical treatment, sundry persons	153.00
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C. F. Starr, M. D., surgical treatment, sundry persons	15.00
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F. H. Thurston, medicines	3.45
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Hartley Vaughan, burying 2 horses	7.00
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 \$250.64

LAUNDRY, ETC.

Paid Clark M. Bailey :

10 gross matches	\$7.00
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2 cases toilet paper	20.00
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Paid Napoleon Daigle, soap, etc. . . .

The Daniels-Cornell Co., soap .	4.75
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Mrs. Filbert, washing floors and windows	4.00
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Mrs. Glacken, cleaning paint, etc. .	20.50
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Mrs. A. M. George, cleaning paint, etc.	96.30
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J. N. Lacourse & Co., soap60
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Patrick Ryan, soap	1.12
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John B. Varick Co., mop waste, brooms, duster, sponges	6.18
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Mrs. J. F. Wiggin, washing towels, blankets, etc.	65.00
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 \$228.42

ROGUES' GALLERY.

Paid L. W. Colby, photographing criminals

\$36.50

J. G. Ellinwood, photographing criminals	6.00
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 \$42.50

REPAIRS, ETC.

Paid L. M. Aldrich, labor	\$0.38
Combination Ladder Co., 1 Detroit door opener	20.00
Paid Peter Harris:	
Keys	2.00
Repairing cell	2.50
Unlocking trunks . . . . .	.50
Paid Charles A. Hoitt & Co.:	
1 desk	35.00
1 table	7.00
1 chair	5.50
4 shades, made and hung	2.72
Paid The Thomas A. Lane Co., labor on boiler grate	29.41
Manchester Heating & Lighting Co., 1 shade and ring . . . . .	.50
E. H. McQuade, electric bell	1.65
Henry McQuade, electric bells, la- bor on same	14.90
Paid Pike & Heald Co.:	
Repairing waste pipe	7.85
Repairing dippers . . . . .	.95
Paid Leander Pope, repairing bunks, etc.	3.80
John B. Varick Co., lanterns, hose menders, globes, etc.	10.98

 \$145.64

SUNDRIES.

Paid C. F. Abbott, 1 Abbott ash sifter	\$6.75
Adams & Tasker, 50 lbs. lime and salt . . . . .	.70
L. B. Bodwell & Co., 20 lbs. ice daily from May 16 to November 6	10.01
Miss A. B. Brown, rent of matron's room	75.00

Paid Champion Flue Scraper Co., 1 flue scraper	\$4.50
Paid John Driscoll :	
6 brooms	1.75
25 lbs. mop waste	3.75
Paid M. J. Healy, cash paid, witness fees and other expenses	307.53
B. A. Moody, caring for lost children	4.90
Paid Charles Noll :	
104 letter file boxes	41.60
103 box covers	10.30
Paid D. F. O'Connor, services defending minor	2.00
A. C. Osgood, services defending minor	2.00
Paige & Myrick, police badges	5.00
James P. Slattery, repairing clocks	2.75
Frank P. Wiggin, killing dogs	19.00
	<hr/>
	\$497.54
	<hr/>
Total expenditures	\$40,200.00
Transferred to reserved fund	200.00
	<hr/>
	\$40,400.00

Repairs of Buildings.

Appropriation	\$4,000.00
Transferred from appropriation for Halls-ville schoolhouse	320.33
Transferred from reserved fund	764.71
	<hr/>
	\$5,085.04

EXPENDITURES.

LABOR.

Paid labor of men and teams, as per pay-rolls, in division No. 2 :

January	\$30.00
February	24.00

March	\$24.00	
April	24.00	
May	30.00	
June	24.00	
July	24.00	
August	30.00	
September	24.00	
October	30.00	
November	24.00	
December	24.00	
	<hr/>	\$312.00

Paid Lovejoy & Stratton, labor and care
of clocks on schoolhouses and other
public buildings, from Dec. 22, 1892,
to Dec. 31, 1893 \$397.50

CITY HALL.

Paid L. M. Aldrich :

Repairing chairs	\$0.85
Lumber and labor on floor	4.00
Lumber and labor, messenger's and street commissioners' offices	6.98

Paid John Bryson, labor and paint, engi- neer's office	24.13
Baker & O'Brien, paint and labor	2.20
C. H. Hutchinson Foundry & Ma- chine Works, 295 pounds grate castings	16.23
Head & Dowst Co., lumber and labor	1.25
Daniel McAuliffe, repairing and kal- soming city treasurer's office	16.20
Pike & Heald Co., plumbing mate- rial and labor	65.75
Joseph St. Laurent, lumber and labor	67.66
	<hr/>

\$205.25

CITY LIBRARY.

Paid Baker & O'Brien, paint and labor . \$146.84

Paid The Head & Dowst Co.:

Material and labor	\$33.15	
Material and labor, per contract . . .	155.00	
Paid The Thomas A. Lane Co., plumbing material and labor	83.55	
B. F. McDonnell, painting and decorating section of library, as per contract	475.00	
Daniel McAuliffe, kalsomining	20.97	
Pike & Heald Co., plumbing material, etc.	37.49	
Joseph St. Laurent, material and labor	105.37	
Shirley & Stuart, mason work	5.55	
Wm. E. Williams, repairing slate roof	18.16	
	<hr/>	\$1,081.08

POLICE STATION.

Paid L. M. Aldrich, material and labor	\$175.19	
J. J. Abbott, material and labor	191.33	
John Driscoll, material and labor, Clinton-street station	24.25	
Eastman & Martin, repairs on boiler	12.75	
Larkin & Connors, repairs on water-closet, Clinton street	1.80	
Pike & Heald Co., plumbing material and labor	101.30	
Shirley & Stuart, mason-work	6.75	
	<hr/>	\$513.37

ENGINE HOUSES.

Paid L. M. Aldrich, lumber and labor :

Chemical house	\$2.70
General Stark house	27.76
Merrimack house	151.20
Massabesic hosehouse	23.25
Vine-street house	238.37

Paid Baker & O'Brien, paint and labor :

Merrimack house	\$12.85
Pennacook hosehouse	15.07
Vine-street house	207.95
Chemical house	32.45
General Stark house	2.63
Fulton house	1.42
Fire King house	1.21

Paid John Bryson, paint and labor :

General Stark house	207.42
Fulton house	27.65
Fire King house	8.73

Paid F. W. Blood & Co., material and

labor, repairing roof, Vine street 42.39

M. J. Coleman, plumbing material
and labor, General Stark house . 78.03Dana & Provost, material and labor,
fixing windows 13.10

Joel Daniels & Co., paint, glass, etc. 3.67

Wm. E. Goodwin, bracket, globe,
gas burner, etc., Chemical house 3.50

Paid The Head & Dowst Co. :

Lumber and labor, Vine street . . . 26.20

Plastering, Merrimack house . . . 6.16

Lumber and labor, Merrimack house . 44.88

Bill for slate roof, Merrimack house . 8.99

Paid Larkin & Connors, plumbing repairs 46.82

Frank I. Lessard & Co., plumbing
material and labor, Fulton house 33.94The Thomas A. Lane Co., plumbing
material and labor, Vine-street
house 12.93Mills & Sturtevant, repairs, Fire
King 141.54P. J. McGrangahan, washing and
kalsomining ceiling, Chemical . 5.00

Paid Pike & Heald Co., plumbing material and labor :

Vine-street house	\$316.47
Fire King house	3.35
Fulton house	24.94
Massabesic house	3.35
General Stark house	27.14
Merrimack house	125.58
South Manchester hosehouse . .	10.60

Paid Joseph St. Laurent :

Repairing stalls, Merrimack house .	2.95
Repairing roof, etc., Fulton house .	136.82
3 airing traps, Fire King house . .	4.50

Paid Shirley & Stuart, mason-work, Fulton

8.30

William E. Williams, material and labor, putting snow guards on Merrimack house

12.69

Wadleigh Hardware Co., hardware, etc.

26.57

\$2,131.07

BATTERY BUILDING.

Paid L. M. Aldrich, material and labor . \$12.04

J. Choate & Co., setting glass . 9.81

Pike and Heald Co., plumbing and labor 85.24

\$107.09

COURT HOUSE.

Paid L. M. Aldrich, repairing lock . \$0.73

F. W. Blood & Co., repairs on roof 16.62

Kirby Floral Co., plants . . 36.15

The Thomas A. Lane Co., labor on waste pipe 3.07

Paid Larkin & Connors, plumbing repairs	\$17.05	
Pike & Heald Co., repairs on steam and water pipe	8.42	
	<hr/>	\$82.04

SCHOOLS.

Paid Pike & Heald Co., material and labor :		
Webster-street	\$43.01	
Bakersville	1.50	
Paid The Head & Dowst Co., lumber and labor, Webster-street	111.17	
	<hr/>	\$155.68

SUNDRIES.

Paid D. Barker, 1 office desk	\$5.00	
C. H. Hutchinson Foundry & Machine Co., brass fittings	1.00	
Paid Head & Dowst Co.:		
Labor and material	15.75	
Removing voting booths	3.50	
Paid Warren Harvey, removing loam and grading lot, Union and Bridge streets	30.45	
Paid Larkin & Connors :		
Repairs, public comfort	20.00	
Ward 8 wardroom	11.56	
Paid Clemens Langer, plumbing material	10.90	
Pike & Heald Co., labor cleaning waste pipe	1.80	
	<hr/>	\$99.96
Total expenditures		\$5,085.04

Ward 5 Wardroom.

Balance from last year, unexpended	\$2,274.63	
Appropriation	3,000.00	
	<hr/>	\$5,274.63

EXPENDITURES.

ARCHITECTS.

Paid Chickering & O'Connell :

Details and superintendence of base- ment, and general drawings . . .	\$66.50
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Details and superintendence of first floor	51.30
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General drawings and specifications, two-story wardroom building . . .	167.50
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Altering drawings of one-story building	36.00
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Altering specifications	10.00
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Details of one-story building . . .	45.00
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Supervision of construction of ward- room, 1½ per cent	67.50
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Paid Francois Gallipeau, on account, foundation	665.25
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Paid Maurice & Dufresne :

Covering in wardroom, on account . .	171.00
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Final payment, first floor	342.00
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 \$1,622.05

Total expenditures	\$1,622.05
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Amount transferred to new account	3,652.58
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 \$5,274.63

Pearl-Street Schoolhouse.

Balance from last year, unexpended . .	\$1,120.95
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Appropriation	8,500.00
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Appropriation (resolution, June 5, 1894)	2,800.00
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Transferred from reserved fund	562.05
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 \$12,983.00

EXPENDITURES.

BUILDING.

Paid W. M. Butterfield, balance due on contract . .	\$360.00
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CONTRACTS.

Paid Mead, Mason & Co., balance due for erection of school building .	\$10,000.00	
Smead Warming & Ventilating Co., second payment on heating appa- ratus	812.50	
Underhill Warming & Ventilating Co., Assignee of Smead Warming and Ventilating Co., final pay- ment on heating apparatus .	406.25	
	<hr/>	\$11,218.75

FURNITURE.

Paid the Bobrick School Furniture Co.:		
48 sets, at \$3.25	\$156.00	
48 sets, at \$3.50	168.00	
Paid The Head & Dowst Co., labor plac- ing seats	9.35	
J. G. Jones, trucking castings and desks	3.50	
	<hr/>	\$336.85

EXTRAS.

Paid E. M. Bryant & Co., electrical work	\$174.37
S. W. Bascomb, labor grading schoolhouse lot	138.15
Joseph Langley, labor grading schoolhouse lot	89.40
Pike & Heald Co., 691 feet gas pip- ing	55.28
Dennis Sullivan, labor grading schoolhouse lot	65.40
Timothy Sullivan, labor grading schoolhouse lot	13.50
J. T. Underhill & Co., concreting driveway and walks	210.00

Paid Wadleigh Hardware Co., 30 pounds

grass seed	\$4.50	
	<u> </u>	\$750.60

Total expenditures		\$12,666.20
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Amount transferred to new account		316.80
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	<u> </u>	\$12,983.00
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New Schoolhouse, Ward 9.

Balance from last year, unexpended	\$4,900.00
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Appropriation	12,000.00
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Transferred from reserved fund	419.79
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	<u> </u>	\$17,319.79
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EXPENDITURES.**CONTRACT.**

Paid The Head & Dowst Co.	\$13,250.00
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Warren Harvey, foundation	1,337.50
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Underhill Warming & Ventilating	
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Co., heating and ventilating	1,625.00
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	<u> </u>	\$16,212.50
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ARCHITECT.

Paid W. M. Butterfield	\$460.00
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EXTRAS.

Paid E. M. Bryant & Co., material and la-	
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bor	\$170.55
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Head & Dowst Co., material and la-	
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bor	107.74
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Pike & Heald Co., 696 feet gas	
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pipng	52.20
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	<u> </u>	\$330.49
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Total expenditures	\$17,002.99
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Amount transferred to new account	316.80
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	<u> </u>	\$17,319.79
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New Schoolhouse, Hallsville.

Balance from last year, unexpended . . . \$703.16

EXPENDITURES.

FURNITURE.

Paid Concord & Montreal Railroad,		
freight on school desks . . .	\$48.45	
Manitowoc Seating Co., desks . .	268.38	
Winchester Furniture Co., 4 No. 20		
teachers' desks	66.00	
	<hr/>	\$382.83
Total expenditures		\$382.83
Transferred to appropriation for repairs of buildings		320.33
	<hr/>	\$703.16

Addition to Webster-street Schoolhouse.

Balance from last year, unexpended . .	\$2,425.00	
Appropriation	3,000.00	
Transferred from reserved fund . . .	997.29	
	<hr/>	\$6,422.29

EXPENDITURES.

CONTRACT.

Paid The Head & Dowst Co., balance		
contract	\$4,285.00	
Smead Warming & Ventilating Co.,		
first payment on heating apparatus	597.50	
G. H. Underhill, assignee Smead		
Warming & Ventilating Co., final		
payment on heating apparatus . . .	597.50	
	<hr/>	\$5,480.00

CONCRETE.

Paid J. T. Underhill & Co. \$261.50

EXTRAS.

Paid Head & Dowst Co.:

Material and labor \$385.40

96 sets school furniture 106.60

Paid Pike & Heald Co., plumbing material and labor

36.63

\$528.63

Total expenditures \$6,270.13

Transferred to reserved fund 152.16

\$6,422.29

Lincoln School Curbing.

Appropriation \$1,000.00

EXPENDITURES.

Amount transferred to appropriation for incidental expenses

\$1,000.00

Fulton Engine House.

Appropriation \$1,000.00

Transferred from reserved fund 2.71

\$1,002.71

EXPENDITURES.

BUILDING.

Paid Mead, Mason & Co., balance of contract \$585.00

EXTRAS.

Paid John Bryson, paper and hanging .	\$46.63	
Dana & Provost, material and labor	10.68	
Frank I. Lessard & Co., 7 lbs. lead	.32	
Paid Mead, Mason & Co.:		
Changing stalls, floors, etc. . . .	250.00	
2 brass slide poles	22.00	
Cutting through and putting door in wardroom	13.00	
Iron grating, etc.	13.90	
Screen frames and covering	12.75	
Paid Temple & Farrington Co., paper and molding	48.43	
	<hr/>	\$417.71
Total expenditures		<hr/> \$1,002.71

Repairs Vine-street Hook-and-Ladder House.

Amount transferred from reserved fund by resolution, March 6, 1894	\$445.00
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EXPENDITURES.

CONTRACT.

Paid L. M. Aldrich, finishing rooms, as per contract	\$445.00
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Hosehouse, South Manchester.

Balance from last year, unexpended .	\$2,500.00	
Appropriation	1,500.00	
Transferred from reserved fund . . .	203.24	
	<hr/>	\$4,203.24

EXPENDITURES.

CONTRACT.

Paid L. M. Aldrich	\$3,800.00	
Chickering & O'Connell, services as architects	190.00	
	<hr/>	\$3,990.00

EXTRAS.

Paid L. M. Aldrich :

Changing doors and partition . . . \$44.50

2½ hours' labor63

Paid The Thomas A. Lane Co., material

and labor 108.11

C. H. McKenney & Co., electric

fixtures 60.00

\$213.24

Total expenditures \$4,203.24

Water-Works.

Balance from last year, unexpended . \$95,144.16

Cash received for water rents, etc. . 110,210.29

Amount received from bonds issued . 50,000.00

\$255,354.45

EXPENDITURES.

LABOR.

Paid labor of men, as per pay-roll :

January \$1,730.70

February 1,015.04

March 1,092.05

April 1,988.95

May 3,195.01

June 2,464.39

July 2,586.87

August 3,344.86

September 2,734.85

October 3,428.56

November 2,745.54

December 2,614.87

\$28,941.69

Paid E. A. G. Holmes :

Labor and lumber, bench	\$61.92
Labor, lumber, and hardware, houses on Hanover and Belmont streets, damaged by blasting	14.70
Lumber and labor	183.21
Paid J. H. Proctor, labor of men and teams	645.84
Wm. Shretski, 2½ days' labor, dig- ging sidewalk	8.00
A. D. Sherer, labor at reservoir	5.60

 \$919.27

GENERAL EXPENSE.

Paid Charles K. Walker :

Salary as superintendent	\$1,999.92
Gas	20.04
Postage stamps	28.50
Express	26.44
Amos Webster	5.00
Car-fare, pens, recording deeds, soap, etc.	4.62
Wire, glue, lamp chimney . . . . .	.95
Drills and tape	1.87
Mr. Austin, plans of gate chamber	15.00
Book, job team, blue print	2.20
Incidentals	20.10
Eaton place sale	5.00
Paid A. R. Ingham, 5 dinners, water commissioners	3.75
Frank W. Elliott, dinners, board water commissioners and guests	42.25
Henry Chandler, 35 meetings of board	140.00
Alpheus Gay, 40 meetings of board	160.00
E. J. Knowlton, 7 meetings of board	28.00

Paid Chas. T. Means, 21 meetings of board	\$84.00	
C. H. Manning, 25 meetings of board	100.00	
Byron Worthen, 13 meetings of board	52.00	
D. B. Varney, 2 meetings of board	8.00	
A. C. Wallace, 35 meetings of board	140.00	
Jas. A. Weston, 40 meetings of board	160.00	
James A. Weston, clerk	100.00	
N. E. Confectionery Co., for lunch served at engine test	2.32	
A. M. Winchester, 16 lunches with coffee and cocoa for men testing engines	5.00	
E. H. Stowe, dinners for county commissioners	10.25	
	<hr/>	\$3,165.21

PRINTING AND STATIONERY.

Paid A. S. Campbell & Co.:		
Printing 16,000 water notices . . .	\$22.40	
1,000 postals and printing	11.50	
Printing 2,500 4-page meter pamphlets	7.50	
Paid The John B. Clarke Co., printing:		
1,500 postals	20.50	
17,150 water bills	35.75	
600 reports	37.50	
2,400 note heads	9.00	
235 blanks	22.00	
500 postal notices	6.50	
100 half-letter heads	2.25	
Paid The John B. Clarke Co., advertising:		
Petition, 23 inches, 3 times . . .	46.23	
One line, 27 times	6.75	
Printing blank book with sheets . .	16.75	
Paid E. R. Coburn Co., stationery . . .		
Exeter Gazette, publishing petition in regard to flowage rights . . .	37.50	

Paid Republican Press Association, publishing petition and order . . .	\$36.00	
Union Publishing Co., advertising water bills	6.45	
	<hr/>	\$367.19

ENGINEERING SERVICES.

Paid George S. Rice and George E. Evans :		
168½ days' services	\$2,022.00	
Typewriter's services	20.28	
Paid Joseph B. Sawyer, services of self and men	1,054.13	
	<hr/>	\$3,096.41

TEAMS, TELEPHONE, FUEL.

Paid George W. Bailey, use of teams . . .	\$50.00	
E. T. James, use of teams	240.50	
Whitten & Fifield, use of teams	248.00	
New England Telephone & Telegraph Co., use of telephones . . .	138.00	
James Baldwin Co., 1 load shavings . . .	.75	
Paid L. B. Bodwell & Co.:		
Egg coal	233.69	
1 ton stove coal	7.50	
Paid Dunlap & Wason Coal Co., 4½ tons Cumberland coal	29.00	
Moore & Preston, 4 tons Cumberland coal	26.00	
John D. Robinson, sawing and splitting wood	25.50	
Paid J. Albert Walker :		
83 1-28 tons Cumberland coal	314.27	
38 tons 280 pounds Cumberland coal . . .	127.72	
Paid J. A. & A. W. Walker, 131 tons 660 pounds Cumberland coal	459.54	
George Whitford, hard wood	9.00	
J. F. Wyman, ½ cord wood	4.00	
G. W. Flint, ½ cord wood	1.75	
	<hr/>	\$1,915.22

LAND.

Paid Amoskeag Manufacturing Co., as per deed	\$5,676.00
Cora K. Bell, self and guardian, as per deed	3,436.86
Elizabeth C. Canfield, as per deed	1,750.00
A. N. Clapp, as per deed	3,500.00
Benjamin Eaton, trustee, as per deed	950.00
Mrs. Lucy A. Follansbee, as per deed	1,500.00
Cleaves N. Harvey, as per deed	1,600.00
Sallie S. Harvey, as per deed	1,000.00
N. P. Kidder, as per deed	3,600.00
David W. Perkins, as per deed	3,650.00
Susan G. Prescott, as per deed	1,000.00
	<hr/>
	\$27,662.86

LEGAL SERVICES.

Paid Drury & Peaslee, services in saw- dust, Devonshire Mills, and flow- age cases	\$221.94
Dana W. King, recording deposi- tions	50.00
William Morrill, recording deposi- tions	50.00
H. W. Moore, services taking depo- sitions, sundry cases	101.28
James P. Tuttle, services taking depositions	167.00
Samuel Webber, services in claim of Devonshire Mills v. City	50.00
	<hr/>
	\$640.22

DAMAGES.

Paid M. D. Johnson :	
Breaking 2 squares of glass	\$1.00
Damage to ceiling . . . . .	.50

Paid C. M. Rowell, damages to cellar by water	\$37.50	
J. O. Turcotte, damage to goods in cellar by water from main pipe in Elm street	150.00	
	<hr/>	\$189.00

FURNITURE.

Paid J. Y. McQueston Co.:		
1 flat-top desk	\$15.00	
7 chairs	14.00	
6 spittoons	4.50	
Leather seating 2 chairs	4.50	
	<hr/>	\$38.00

CONTRACTS.

Paid Bartlett, Gay & Young :		
Balance due on contract	\$2,216.25	
5 per cent interest, 9 months 8 days	85.57	
Paid Frank S. Bodwell :		
Furnishing cut stones for gate house	350.50	
14 stone monuments	10.50	
Paid Head & Dowst Co.:		
Balance due on contract No. 3, engine house foundation and intake pipe	2,548.58	
Balance due on contract No. 4, engine house and chimney	6,650.00	
157 cubic yards dry rubble masonry, laid in rear of pumping station, high service supply	706.50	
Contract for building barn	1,300.00	
Contract for building dwelling	3,000.00	
Lumber and labor	1,065.77	
Paid Moore & Co.:		
Balance due on contract	1,545.61	
5 per cent interest, 9 months 8 days	59.68	

Paid Trumbull & Ryan :

On account, contract No. 5,	
reservoir	\$34,089.77
Less bill for laying pipes,	
and pump	392.04
	<hr/>
	\$33,697.73
Labor and material grouting ledge	15.62
Labor on 24-inch gates and setting bolts	20.18
Extra work and tools	80.30
Pumping	13.87
6 hours' pointing bottom reservoir	1.32
Freight, cartage, repairs, etc.	130.93
	<hr/>
	\$53,498.91

HARDWARE, BLACKSMITHING, FREIGHT.

Paid Manchester Hardware Co., shovels,	
picks, pick handles, etc.	\$110.25
John B. Varick Co., hardware, all	
kinds	730.58
Wadleigh Hardware Co., powder,	
fuse, hammers, etc.	196.41
D. F. Cressey, sharpening tools, etc.	367.57
Cressey & Colby, sharpening tools	26.30
A. Filion, setting tire	2.00
F. H. Senter, sharpening tools	23.05
Boston & Maine Railroad, freight on	
hydrants, pipe, etc.	1,761.86
Concord & Montreal Railroad,	
freight on hydrants, coal, pipe, etc.	779.17
P. W. Dickey, carting oil	1.50
	<hr/>
	\$3,998.69

SUPPLIES.

Paid Adams & Tasker :

16 casks cement	\$23.05
1½ bushels summer rye, and bag	1.65

Paid American Supply Co., 20 coils packing, less freight	\$96.05
Paid Amoskeag Manufacturing Co.:	
Elbows, safety valves, bolts, labor	474.31
Angle irons, straps, hinges, etc.	67.36
Paid Atlantic Works, 2 61-inch Manning boilers, as per contract, less freight	2,068.00
C. G. H. Bennink, 35 rubber washers	3.50
Boston Belting Co., hose and couplings	68.00
Builders' Iron Foundry, sleeves, branches, bends, etc.	452.00
Paid Chadwick Lead Works :	
Pipe, solder, and tin	83.25
600 pigs lead	1,953.28
Paid Chapman Valve Manufacturing Co.:	
1 20-inch Bell light water gate	94.88
10 water gates	136.20
Hydrants, etc.	345.14
Paid P. C. Cheney Co., 100 pounds wiping waste	9.00
Paid Allen N. Clapp :	
357 gallons kerosene oil	26.06
Barrels	4.50
Paid M. T. Davidson, repairing engine	16.50
Paid Dunlap & Wason Coal Co.:	
11 barrels cement	14.35
12 barrels lime	12.60
Paid Edson Manufacturing Co., 1 No. 3 pump head	3.61
Paid Garlock Packing Co.:	
13½ lbs. ring packing	12.26
1¾ lbs. flax packing	1.13
117½ trappers flax	76.38
Paid Hays Manufacturing Co.:	
300 No. 3 stop boxes	265.71

51 1-inch curb cocks	\$40.80	
50 No. 3 curb boxes	45.00	
	<u>85.80</u>	
Less freight	3.02	
	<u>82.78</u>	\$82.78
Paid J. Hodge:		
300 meter boxes		90.00
Material and labor		156.48
Paid Holyoke Hydrant & Iron Works, hydrants, jackets, hydrant heads, etc.		
		1,184.00
Joel Knapp & Son, 64 stone bolts		5.30
Paid The Thomas A. Lane Co.:		
Material and labor		324.34
Labor on pump at pipe yard		1.65
Chisels, valves, plugs, etc.		6.39
Paid Leonard & Ellis, machinery and cylinder oil		
		308.48
Paid Ludlow Valve Manufacturing Co.:		
4 sluice gates	\$474.20	
4 standards, special composition	111.60	
	<u>585.80</u>	
Less bolts and nuts	11.20	
	<u>574.60</u>	574.60
Paid Manchester Locomotive Works, covers, domes, iron, etc., repairs		
		1,548.01
McNeal Pipe & Foundry Co., pipe		14,307.96
Mills & Sturtevant, lumber and labor		242.05
Paid National Meter Co.:		
Meters		2,305.85
Repairing meters, etc.		36.50
Paid N. E. Water Pipe Co., pipe and coupling		
		940.57
Paid S. C. Nightingale & Childs:		
Magnabestos plastic covering to fire boxes of two boilers		53.65

Carting material to station	\$3.00
Paid E. P. Noll & Co.:	
Cherry cornice for map	9.50
Express on map	1.15
Paid Peet Valve Co., 79 water gates . .	1,199.42
Perrin, Seamans & Co., 3 ladles . .	5.50
Pike & Heald Co., material and labor	23.27
Orrin D. Person, curve tile, etc. . .	41.44
Pratt & Cady Co., hydrants . . .	964.78
Luther S. Proctor, 22 poles and setting same	30.00
Ranno Harness Co., tool bag . . .	2.00
Rice & Co., 16 copper screens . . .	220.00
Sewall & Day Cordage Co., 5 coils jute packing	32.64
J. Schultzbach, standard rain gauge . .	4.00
J. B. Smith, material and labor . . .	3.85
Paid I. L. Stickney:	
Rubber valves and packing	12.13
Belt leather . . . . .	.75
25 gaskets, cut to order	3.00
11 $\frac{1}{4}$ pounds packing leather	2.25
Paid G. G. Stillman, damper regulator, complete	119.50
Paid Taunton Locomotive Works:	
Lead melting furnace	20.00
1 grate	2.01
Paid Truax & Truax:	
735 pounds plugs	22.05
60 pounds washers	1.80
1,653 pounds iron castings	49.59
Paid Thomson Meter Co.:	
20 Thomson meters	200.00
Couplings	11.00
Repairs on meters	5.00

Paid Union Brass Co.:

300 1-inch nipples	\$31.25
18½ dozen curb stops	194.25
Curb cocks	193.83

Paid Union Water Meter Co., meters

and repairing meters	1,636.11
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Paid G. R. Vance:

12 galvanized iron pails	12.00
Oil cans, dippers	1.45

Paid D. B. Varney, 32 pieces brass, cut

to order	3.00
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Paid Waldo Brothers:

1 tub clay50
5 barrels clay	7.50

Paid Warren Foundry & Machine Co., 75

pieces 6-inch pipe	338.27
R. M. West, 2 ladders	10.04

Paid Henry R. Worthington:

Engines Nos. 834, 835, delivered, as per agreement, May 25, 1893	8,000.00
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Due on pumping engines Nos. 834, 835, ready for steam	8,000.00
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Balance	7,000.00
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Machinist's time and expenses, running engines Nos. 834 and 835	84.86
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Paid George Woodman Co.:

20 7-12 feet 3-inch pipe	8.44
810 nipples, all sizes	45.16

Paid Yale & Towne Manufacturing Co., 3-

ton pulley block traveler	550.00
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 \$57,583.67

SUNDRIES.

Paid town of Auburn, taxes on land	\$76.74
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Paid J. J. Abbott:

47 rolls paper	6.20
37 yards border	2.22

Paid A. T. Barr :	
Testing 4 set scales	\$2.00
Team	1.00
Paid M. Badger, paint, paper, labor .	
Wm. M. Butterfield, general draw- ings and details for pumping sta- tion, $2\frac{1}{2}$ per cent cost	43.12
Paid J. Choate & Co.:	
Painting crane	236.25
Painting roof over portico	3.75
Paid W. M. Darrah & Co., slating gate- house at high service reservoir .	
Dean & Main, to making duty tri- als of two pumping engines and boilers, and making report thereon	155.33
A. D. Emery, services from Jan. 24, 1891, to Nov. 1, 1894	600.00
James P. Finn, paint and labor . .	45.00
Paid R. D. Gay :	
104 rolls paper	152.22
182 yards border	15.10
Paid Hill-Spaulling Harness Co., strap- ping	
H. J. Lawson, iron, solder, wire, and labor	1.00
Merrill & Laird, repairing chimneys and stone work at pumping station	45.07
W. H. Noiseaux, 200 loads loam . .	146.60
C. H. Robie Concrete Co., concret- ing at new station	50.00
F. M. Smith, rent of land to Oct. 1, 1894	335.65
treasurer of sinking fund, amount of hydrant tax for 1894	100.00
G. W. Wales, making map of city . .	13,925.00
	145.00

Paid Wm. E. Williams, repairing slate roof at pumping station . . .	\$7.98	
	<hr/>	\$16,107.59
Total expenditures		\$198,123.93
Transferred to interest appropriation		38,399.00
Transferred to new account		18,831.52
		<hr/>
		\$255,354.45

Commons.

Appropriation	\$3,500.00	
Transferred from reserved fund	3.46	
	<hr/>	\$3,503.46

EXPENDITURES.

LABOR.

Paid labor of men and teams, as per pay-roll :

January	\$250.50	
February	194.88	
March	172.00	
April	161.00	
May	159.00	
June	183.25	
July	111.74	
August	193.39	
September	180.62	
October	207.25	
November	90.10	
December	92.87	
	<hr/>	\$1,996.60

Paid labor of men and teams, as per pay-roll, division No. 2 :

December	\$5.00
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PLANTS, LOAM, TREES, ETC.

Paid A. G. Hood, plants	\$60.00	
H. H. Huntress, plants	68.00	
The Kirby Floral Co., plants . . .	26.00	
Ray Brook Garden Co., plants . . .	32.00	
J. S. Holt & Co., 1,568 bushels ashes	196.00	
J. A. Chamberlen, 57 trees	57.00	
John Perham, 12 maple trees	4.80	
	<hr/>	\$443.80

WATER AND ELECTRIC LIGHTS.

Paid Water Commissioners, use of water .	\$700.00	
The Electric Co., running lights at Merrimack-street public comfort .	18.00	
Union Electric Co., electric lights	18.00	
	<hr/>	\$736.00

REPAIRS AND GENERAL EXPENSES.

Paid Adams & Tasker, 1 bushel salt . . .	\$0.35	
J. J. Abbott, paint for painting seats on commons	11.83	
Paid L. M. Aldrich :		
Filing saws . . . . .	.95	
Lumber and labor	5.60	
Paid John Bryson, paint and labor . . .	14.99	
Paid Flint & Little :		
Re-cutting 12 large files	2.18	
Filing saws . . . . .	.15	
Paid John N. Foss, use of teams	44.00	
John Fullerton, 2 keys	1.00	
C. H. Hutchinson Foundry & Ma- chine Co., material and repairs . . .	26.25	
A. & W. S. Heath, 4 pairs rubber boots	2.20	
The Thomas A. Lane Co., hose, la- bor on fountains, etc.	19.35	
People's Gas-Light Co., 1 chaldron coke	4.50	

Paid Pike & Heald Co.:

Cleaning waste pipe	\$0.50	
Repairs	1.10	
Paid Leander Pope, sharpening tools, etc.	31.90	
John B. Varick Co., tools, hardware, etc.	136.11	
Parnell Brothers, 6 barrels	2.10	
I. L. Stickney, 4 pairs rubber mittens	4.00	
Wingate & Gould, 4 pairs rubber boots	13.00	
		<u>\$322.06</u>
Total expenditures		\$3,503.46

Stark and Derryfield Parks.

Appropriation	\$5,000.00	
Transferred from appropriation for repairs of highways	158.73	
		<u>\$5,158.73</u>

EXPENDITURES.

LABOR.

Paid labor of men and teams, as per pay-roll, commons:

January	\$32.00	
February	12.50	
March	11.50	
April	40.25	
May	1,257.88	
June	1,254.75	
July	1,140.62	
August	705.97	
September	240.00	
		<u>\$4,695.47</u>

Paid labor of men and teams, as per pay-roll, division No. 2:

September	\$115.75
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TOOLS, HARDWARE, AND REPAIRS.

Paid L. M. Aldrich, lumber and labor	\$8.71	
J. J. Abbott, painting signs	7.29	
Adams & Tasker, barrel cement	2.75	
Edwards O. Dodge, 54 loads stone	13.50	
J. G. Ellinwood, 1 tintype, Stark park plan . . . . .	.50	
Gage & Adams, sawing 11¾ thou- sand feet lumber	23.50	
A. E. Herrick, cash paid, expenses to Boston and return	3.00	
Kilburn & Cross, 1 electrotype of plan of Stark park	6.00	
J. B. McCrillis & Son, repairs	6.95	
Massachusetts Broken Stone Co., broken stone	74.84	
Trumbull & Ryan, sharpening tools	12.90	
John B. Varick Co., tools, hard- ware, etc.	187.57	
	<hr/>	\$347.51
Total expenditures		\$5,158.73

Pine Grove Cemetery.

Appropriation	\$9,000.00	
Transferred from reserved fund	730.93	
	<hr/>	\$9,730.93

EXPENDITURES.

LABOR.

Paid labor of men and teams, as per pay-roll :

January	\$184.25
February	179.25
March	158.50
April	257.45

May	\$547.14
June	577.95
July	608.48
August	602.46
September	375.47
October	394.38
November	172.03
December	140.18
	<hr/>
	\$4,197.54

LAND.

Paid E. C. Howlett, land for addition to cemetery	\$1,000.00
C. C. Webster, balance due on land	1,000.00
	<hr/>
	\$2,000.00

PLANTS, LOAM, ETC.

Paid Sidney A. Blood, drawing 65 loads loam	\$65.00
Crafts & Green, 244 loads loam .	122.00
A. G. Hood, plants	50.23
H. H. Huntress, plants	39.68
C. C. Webster, 178 loads clay .	178.00
	<hr/>
	\$454.91

WATER, TELEPHONE, INSURANCE, FUEL.

Paid Dunlap & Wason Coal Co., 5 tons stove coal	\$34.50
Everett & Smith, premium on pol- icy No. 733,882, N. H. Insur- ance Co. (Howlett house) . . .	15.00
A. Elliott & Co., premium on pol- icy No. 738,741 (Howlett house)	5.00
N. E. Telephone & Telegraph Co., use of telephones	86.85
Water Commissioners, use of water .	756.00
	<hr/>
	\$897.35

PRINTING AND STATIONERY.

Paid The John B. Clarke Co., printing receipt book	\$2.25
Paid W. P. Goodman :	
1 quart ink . . . . .	.75
1 index journal	1.09
Paid W. E. Moore :	
Printing, binding, and lettering 1 interment book, and one water rent book	9.50
Printing lot blanks with stubs . . .	2.00
Paid B. A. Stearns, 300 stamped envelopes	6.54
Paid Temple & Farrington Co.:	
3 blocks . . . . .	.21
Paper . . . . .	.25

 \$22.59

REPAIRS AND IMPROVEMENTS.

Paid F. Allen, repairing grave straps .	\$0.30
John T. Beach, 1 one-horse sled .	45.00
J. Hodge, 400 chestnut hubs . .	8.00
The Head & Dowst Co., lumber and labor	6.74
Paid Charles A. Hoitt & Co.:	
Re-caning 4 chairs	4.00
1 cushion	2.00
Paid C. H. Hutchinson Foundry & Machine Co., 15 pounds castings .	.53
The Thomas A. Lane Co., material and labor on fountain and water pipe	267.92
Paid Palmer & Garmon :	
Setting over Kimball monument, putting in foundation	6.70
8 bound posts	14.00
Paid Joseph St. Laurent, glass, putty, knobs, screws	7.30

Paid A. J. Sawyer, lumber	\$66.80
C. E. Lord, mason-work	17.30
Truax & Truax, 205 feet iron fence, as per contract	440.75

Paid John B. Varick Co.:

Grass seed	52.04
6 7-foot settees	36.00
12 5-foot settees	52.80
150 feet hose	13.50
Hardware	19.13
Lawn sprinklers	4.76
1 lawn mower	6.50

Paid N. J. Whalen, 1 pair straps and re- pairs	2.00
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 \$1,074.07

REPAIRS ON HOWLETT HOUSE.

Paid J. J. Abbott, paper, paper hanging, paint	\$27.53
Adams & Tasker, 2 casks lime . . .	1.90

Paid L. M. Aldrich:

Contract for remodeling and repairs .	677.00
Material and labor	30.70

Paid J. Choate & Co., graining, varnish-
ing, paint, paper, etc. . . .

9.52

Charles A. Hoitt & Co., 156 feet
molding

5.64

C. H. Robie Concrete Co., 91.4
square yards concreting . . .

41.13

A. J. Sawyer, lumber

37.64

John B. Varick Co., door stops, glass,
putty, brackets, locks, nails, etc. .

9.31

 \$840.37

SUNDRIES.

Paid L. M. Aldrich, filing saws . . .	\$0.80
Chas. H. Bartlett, services as clerk of trustees of Pine Grove cemetery for 1891, 1892, and 1893	75.00

Paid L. B. Clough, lot of land in cemetery, No. 1724	\$40.00	
D. N. Gove, use of team	1.50	
Paid Pike & Heald Co.:		
6 stoppers . . . . .	.60	
Labor repairing stove	5.70	
Paid B. A. Stearns, expenses of trustees to Forest Hills and other cemeteries in Massachusetts	70.00	
C. H. Simpson, use of teams	26.00	
J. C. Nichols & Son, use of teams	11.00	
Whitten & Fifield, use of teams	13.50	
	<hr/>	\$244.10
Total expenditures		<hr/> \$9,730.93

Valley Cemetery.

Appropriation	\$3,000.00
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EXPENDITURES.

LABOR.

Paid labor of men and teams, as per pay-roll:

January	\$77.50
February	62.75
March	64.63
April	141.20
May	275.08
June	225.08
July	217.24
August	265.91
September	201.91
October	214.61
November	124.77
December	76.48
	<hr/> \$1,947.16

Paid B. F. Bascomb :

13 1-5 days' team labor	\$56.80
Drawing 45 loads loam	43.25
342 loads sand	68.40
2 $\frac{2}{3}$ cords manure	9.33
Breaking roads	13.25
Paid William Berwick, team labor . .	12.30

 \$203.33

WATER AND TELEPHONE.

Paid Water Commissioners, use of water .	\$125.70
New England Telephone & Tele- graph Co., use of telephone .	26.60

 \$152.30

TURF, LOAM, PLANTS, ETC.

Paid J. Francis, plants	\$53.50
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Paid Neil Fullerton :

7 loads loam	8.75
177 feet turf	1.77
Team	2.00

Paid Henry W. Hall, 31 loads loam .	15.50
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Paid A. G. Hood :

Plants	17.28
30 loads loam	15.00

Paid H. H. Huntress, plants	14.95
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 Manchester Slaughtering & Render-
ing Co., 400 pounds fertilizer .

7.50

Paid Manchester Hardware Co.:

Grass seed	3.00
100 pounds top dressing	2.00

Paid A. C. Osgood, 3 cords manure .	12.00
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John B. Varick Co., grass seed .	17.62
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Wadleigh Hardware Co., grass seed	1.50
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Paid P. O. Woodman :

10 loads loam	5.00
645 feet turf	6.45

 \$183.82

PRINTING AND STATIONERY.

Paid E. J. Knowlton, postmaster, envelopes and postal cards . . .	\$2.43
S. S. Piper, postmaster, 50 2-cent stamped envelopes . . .	1.09
Paid Temple & Farrington :	
2 receipt books	4.00
1 blank book	5.75
200 billheads	1.00
Other stationery . . . . .	.75

 \$15.02

REPAIRS, TOOLS, AND IMPROVEMENTS.

Paid L. M. Aldrich, filing saws . . .	\$0.20
J. J. Abbott, paint and glass . . .	.95
A. L. Bixby, lumber and labor . . .	60.17
Frank X. Chenette, use of team . . .	2.00
Timothy Foley, 4 days' labor white-washing tomb	12.00
C. E. Forbes, 1 20-foot ladder . . .	2.00
J. Hodge, lumber, etc.	1.46
John F. Larkin, material and labor on water pipe	93.35
Lovejoy & Stratton, cleaning clock . . .	1.00
Manchester Hardware Co., tools . . .	7.35
Pike & Heald Co., pipe, hose, nozzles, etc.	87.04
W. H. Tibbetts, paint and labor . . .	127.71
J. T. Underhill & Co., 143.32 yards concrete	64.49
John B. Varick Co., tools, etc.	5.82
Wadleigh Hardware Co., tools . . .	5.85

 \$471.39

Total expenditures	\$2,973.02
Transferred to reserved fund	26.98
	<hr/>
	\$3,000.00

Amoskeag Cemetery.

Appropriation	\$150.00	
Transferred from reserved fund	4.24	
	<hr/>	\$154.24

EXPENDITURES.**LABOR.**

Paid James E. Bailey, labor	\$135.51
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HARDWARE.

Paid Wadleigh Hardware Co., paint and brushes	\$6.73
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SUNDRIES.

Paid Water Commissioners, use of water	\$12.00	
Total expenditures	<hr/>	\$154.24

Paupers off the Farm.

Appropriation	\$7,000.00	
Transferred from reserved fund	2,866.88	
	<hr/>	\$9,866.88

EXPENDITURES.**GROCERIES.**

Paid Annis & Co.	\$15.98
H. H. Alton	6.00
E. R. Barry	3.00
Bartlett & Thompson	96.00
A. N. Clapp	9.00
Eager & Rand	69.00
H. Fradd & Co.	212.00
T. F. Fifield	621.00
Fred Fifield	2.00
A. G. Grenier	118.00
Griffin Brothers	1,194.56
Joseph Huard	180.00

Paid O. D. Knox & Co.	.	.	.	\$148.00
Lamoureux Brothers	.	.	.	215.50
C. S. Magoon & Co.	.	.	.	16.00
Thomas H. Mahoney	.	.	.	344.00
Edward Marchand	.	.	.	372.55
McQuade Brothers	.	.	.	36.00
Parnell Brothers	.	.	.	4.00
E. W. Perkins	.	.	.	236.73
D. M. Poore & Son	.	.	.	62.00
Joseph Quirin	.	.	.	210.00
Eugene Quirin	.	.	.	16.00
D. A. Shanahan	.	.	.	144.00
Schricker Brothers	.	.	.	16.00
Scheer & Renker	.	.	.	3.00
J. O. Turcotte	.	.	.	46.00
H. A. Tirrell	.	.	.	85.00
Joseph Trehan & Co.	.	.	.	6.12
Calixte Vigneault	.	.	.	27.00
M. Verrette, Jr.	.	.	.	8.00
Henry Weber	.	.	.	48.00
Carl E. York	.	.	.	11.00
				<hr/>
				\$4,581.44

FUEL.

Paid Clement Beaudett	.	.	.	\$37.60
DeCourcy, Holland & Marshall	.	.	.	.50
DeCourcy & Holland	.	.	.	10.25
Dunlap & Wason Coal Co.	.	.	.	16.01
S. L. Flanders	.	.	.	39.00
Moore & Preston	.	.	.	29.63
John Perham	.	.	.	10.00
C. E. Pollard	.	.	.	3.00
D. M. Poore & Son	.	.	.	20.38
J. P. Russell & Co.	.	.	.	49.50
E. V. Turcotte	.	.	.	72.50
J. T. Wyman	.	.	.	59.14

Paid Oscar M. Titus	\$6.00
Joseph Masse	1.00

 \$354.51

BOARD AND CARE, AND RENT.

Paid A. A. Lamprey	\$2.00
county of Hillsborough	492.00
Daniel Davis . . . .	.50
John Ferguson	20.00
W. H. Gilmore	130.57
A. D. Hatch	30.00
Carrie E. Jackson	74.48
W. M. Kendall	12.00
Mrs. Horace P. Marshall	3.25
Christina Maycook	131.08
Mary McLowe	22.00
Agnes Massey	96.00
N. H. Orphans' Home	46.00
Mary Nadeau	27.00
Mrs. Margaret O'Brien	15.00
Clara H. Pressey	67.77
John Reynolds	5.00
D. L. Robinson	94.00
St. Patrick's Old Ladies' Home	98.00
St. Patrick's Orphans' Home	120.00
Sacred Heart Hospital	25.00
State Industrial School	2,964.44
William Whelpley	120.00

 \$4,596.09

CLOTHING.

Paid Beauchemin & Beaumier	\$1.50
Lightbody & Burbank	24.45
M. A. McDonough	1.00
M. F. O'Toole	9.75
Parent & Trudeau	1.25
G. L. Robinson	7.00

Paid P. F. Toole	\$3.50	
Weston & Martin	1.00	
Wingate & Gould	3.50	
	<hr/>	\$52.95

MEDICINES, MEDICAL SERVICES, FUNERAL EXPENSES.

Paid Mrs. Anna Brooks, nurse services .	\$2.00	
I. L. Carpenter, M. D., medical examination	3.00	
J. J. Holland, medicine . . . . .	.80	
John B. Hall, medicines	7.80	
Frederick Perkins, M. D., medical attendance	13.00	
F. H. Thurston, medicine	42.24	
county of Hillsborough, burial expenses, Christian Eberle	10.00	
T. F. Collins, burial expenses, John Kenney	25.00	
T. F. Collins, burial expenses, John Dowd's son	25.00	
F. X. Chenette, burial expenses, Joseph Davis	25.00	
Kean & Sheehan, burial expenses, child of Mary Shea	10.00	
E. V. Turcotte, burial expenses, Mrs. Allison	25.00	
E. V. Turcotte, burial expenses, D. Allison	25.00	
	<hr/>	\$213.84

SUNDRIES.

Paid Officer J. J. Connor, conveying Theophile Lemire to asylum .	\$1.12
John B. Clarke Co., printing 700 billheads	6.50
A. G. Grenier, railroad tickets, F. Marcotte and wife	15.00

Paid W. P. Goodman, stationery . . .	\$22.69	
E. T. James, use of hacks . . .	2.00	
Paid W. H. Maxwell:		
Expense conveying T. Lemire to asylum	5.05	
Expense conveying Mary A. Cook to asylum	8.44	
Paid Paige & Myrick, 1 hand stamp . .	1.25	
E. V. Turcotte, removing Mrs. E. Masson to Elliot Hospital . . .	2.00	
Whitten & Fifield, use of teams . . .	4.00	
	<hr/>	\$68.05
Total expenditures		<hr/> \$9,866.88

City Farm.

Appropriation	\$8,000.00	
Transferred from reserved fund . . .	486.35	
	<hr/>	\$8,486.35

EXPENDITURES.

HOUSE AND FARM LABOR.

Paid Zebina Annis	\$1.50
Bertha Bagley	114.86
Lester Brooks	44.73
William Burke	177.67
Sarah Cahill	182.00
Donat Duval	21.63
Charles Fuller	266.88
Daniel Griffin	150.53
Daniel Grant	69.65
Hannah Hackett	108.71
Chauncy Hazen	242.60
Fred Krause	68.93
John Kelly	104.85
E. G. Libbey	500.00
Annie Libbey	300.00

Paid Joseph Murphy	\$168.67	
Christina McDonald	41.00	
John L. Proctor	84.32	
Kate Pendergast	50.00	
Levi J. Proctor	10.00	
Martha Raycraft	10.72	
James Rourke	43.62	
William Thompson	187.29	
	<hr/>	\$2,950.16
Paid Adams & Tasker, grinding corn .	\$15.62	
Paid Gage & Adams:		
Labor sawing 156.8 feet lumber . .	313.60	
Moving mill from Dunbarton . .	12.00	
Paid V. B. Martin, threshing oats . .	12.00	
Edward Merrill, grinding corn .	23.05	
Paid Samuel Richardson:		
Grinding apples	5.08	
Sawing lumber	3.83	
	<hr/>	\$385.18

FUEL.

Paid L. B. Bodwell & Co., 25,455 lbs.		
egg coal	\$79.55	
Paid Dunlap & Wason Coal Co.:		
Egg coal	84.75	
Stove coal	13.50	
Paid S. C. Forsaith Machine Co., kind-		
ling wood	1.50	
Moore & Preston, stove coal . .	77.70	
D. M. Poore, 1/2 ton Cumberland		
coal	2.50	
	<hr/>	\$259.50

CLOTHING AND DRY GOODS.

Paid Burke Brothers, shoes	\$1.25	
Barton & Co., cotton, crash, hose,		
etc. . . .	38.28	

Paid George Blanchet, cotton, crash, etc.	\$4.62
Cushman & Hardy, jumpers, shirts, overalls, etc.	38.30
Clark & Estey, rubbers, buttons, hose, etc.	9.07
W. P. Farmer, boots and shoes .	9.90
Stanley E. Gould, boots and shoes .	86.89
Frank P. Kimball, clothing . .	49.56
F. W. Leeman, drilling	5.63
Manchester One Price Clothing Co., clothing	46.44
John Robbie Co., table linen, cot- ton, etc.	12.24
P. H. Tierney, shirts and drawers .	9.60
Weston & Hill Co., dry goods .	104.27
Wingate & Gould, boots and shoes	20.90
	<hr/>
	\$436.95

GROCERIES AND PROVISIONS.

Paid Annis Flour & Grain Co. . . .	\$460.04
F. J. Bixby	77.95
Bartlett & Thompson	18.54
Barlow & Nye	3.92
Clough & Co.	7.70
C. E. Cox	27.21
E. P. Desrochers	5.80
Daniels-Cornell Co.	130.77
Doane & Welch	55.89
Dodge & Laing	63.16
Eager & Rand	16.38
A. M. Eastman	14.03
H. B. Fairbanks	2.09
Flanders & Martin	3.00
Granite State Grocery Co. . . .	5.59
A. L. Gadbois	4.85
A. G. Grenier	47.97
Hubbell & Goings	1.54

Paid J. S. Holt & Co.	\$12.00
Daniel Johnson	2.00
Horace Marshall	4.08
Manchester Provision Co.	126.29
Manchester Beef Co.	15.96
Manchester Slaughtering & Rendering Co.	8.05
McQuade Brothers	78.77
E. S. Newton	81.28
New York Market	14.14
Henry W. Parker	114.41
Phoenix Market	16.22
J. B. Pickard	1.94
W. E. Prescott . . . . .	.80
D. M. Poore & Son	19.25
Parnell Brothers	142.08
Public Market & Packing Co.	57.07
E. W. Perkins	16.32
Queen City Market	4.38
Joseph Quirin	209.97
Fred Ray	12.25
Tom W. Robinson	39.72
Summer Street Market	3.21
E. M. Slayton	17.86
South Manchester Union Society	1.25
Sawyer & Clay	5.07
J. H. Wiggin & Co.	37.84
York Market Co.	19.24
T. E. McDerby	5.66
	<hr/>
	\$2,013.54

FURNITURE AND KITCHEN UTENSILS.

Paid Clark M. Bailey, brooms, chimneys, baskets, lanterns, etc.	\$30.03
John Driscoll, wicks, copper bot- tom on boiler, etc.	1.85

Paid R. K. Horne, plates, pans, pails, tumblers, dippers, mops, wicks, etc.	\$14.99	
Charles A. Hoitt & Co., lamps, pitchers	2.30	
F. E. Nelson, sponges, dippers, cups and saucers, tinware, etc.	9.32	
Pike & Heald Co., dippers	1.00	
D. A. Simons, crockery, etc.	3.78	
R. M. West, ironing board	1.25	
	<hr/>	\$64.52

MEDICINE, MEDICAL SERVICES, LIVE STOCK INSURANCE.

Paid A. L. Dodge, D. V. S., services as veterinary surgeon	\$9.75	
J. L. Golden, medicine	4.15	
J. J. Holland, medicine	3.35	
George E. Richards, medicine	2.40	
C. E. Silver, medicine	1.25	
F. H. Thurston, medicine	14.40	
Security Live Stock Insurance Co., fees and assessments	88.85	
	<hr/>	\$124.15

LIVE STOCK.

Paid John N. Foss, clipping horses	\$2.50	
Irving R. French, balance due on trade	10.00	
Welch & Hall, 1 horse	125.00	
	<hr/>	\$137.50

BLACKSMITHING, HARNESES, ETC.

Paid The Fred Allen Co., blankets, lin- ing and lettering same, etc.	\$14.60	
J. M. Brouillette, shoeing horses	116.57	
H. A. Green, shoeing oxen	6.00	
Manchester Horse Shoeing Co., shoeing horse	1.25	
N. J. Whalen, harness repairs, etc.	102.80	
	<hr/>	\$241.22

CARRIAGES, AND CARRIAGE REPAIRS.

Paid Couch & McDonald, repairing car-		
riages	\$14.55	
Dennis Clifford, 1 log sled	3.50	
Paid A. Filion :		
New shafts	1.75	
Setting axle	1.00	
Paid S. A. Garland, repairing wheel .	5.75	
Paid Kimball Carriage Co.:		
Painting wagon	12.00	
Repairs on carriages	13.85	
Paid J. B. McCrillis & Son :		
Ironwork, bar, setting box	1.75	
Repairs on carriages	10.95	
Paid F. H. Senter, splicing shaft . .	.75	
Timothy Shea, 1 sled	35.00	
	<hr/>	\$100.85

HAY, GRAIN, AND OTHER FEED.

Paid Annis Flour & Grain Co. . . .	\$82.30	
Freeman & Merrill	9.50	
John F. Kerwin	6.00	
Clarence R. Merrill	459.47	
Partridge Brothers	40.25	
	<hr/>	\$597.52

HARDWARE, FERTILIZERS, SEEDS, ETC.

Paid Dr. Collity, 1 load manure . . .	\$1.00	
Jas. J. H. Gregory, seeds, all kinds	9.60	
John B. Varick Co., paint, brushes,		
seeds, hardware	242.36	
Wadleigh Hardware Co., powder,		
fuse, locks, etc.	5.56	
	<hr/>	\$258.52

INSURANCE.

Paid John Dowst, agent, Capitol Fire In-		
surance Co., policy No. 26,134 . . .	\$20.00	

Paid A. Elliott & Co.:

Policy No. 10,292, Northern Insurance Co.	\$40.00
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Policy No. 92,003, Granite State Insurance Co.	40.00
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Paid Richardson & Goggin, policy No. 44,025, N. H. Fire Insurance Co.	60.00
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John A. Sheehan, policy No. 101,039, Imperial Insurance Co.	40.00
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\$200.00

TELEPHONE AND STATIONERY.

Paid N. E. Telephone & Telegraph Co.,

use of telephone	\$44.55
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E. R. Coburn Co., stationery	4.91
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W. P. Goodman, stationery	2.30
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Novelty Advertising Co., stamps70
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Paid Temple & Farrington Co.:

1 clock	1.00
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Stationery	2.87
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\$56.33

REPAIRS AND IMPROVEMENTS.

Paid J. J. Abbott, paint, paper, etc.	\$5.23
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L. M. Aldrich, filing saws	1.20
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Bert Barlow, electrical supplies	7.36
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Frank Brendle, repairs on floor, roof, etc.	13.60
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Thomas Coughlin, 1 day building chimney	3.00
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Dana & Provost, lumber and labor	2.90
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Freeman & Merrill, lime and hair	2.84
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A. E. Gage, labor and timber for moving buildings	15.00
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William E. Goodwin, plumbing material and labor	32.81
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R. D. Gay, paper and border	2.70
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Paid The Head & Dowst Co., labor and lumber	\$52.92
Peter Harris, repairs and fitting keys	2.55
Paid The S. M. Howes Co.:	
1 Jewett range, etc.	138.70
1 40-gallon boiler	24.00
Paid Charles A. Hoitt & Co., paper and border	3.96
J. Hodge, lumber	33.30
Paid C. Langer:	
Labor connecting range with boiler .	6.00
2 sheets zinc	2.50
2 large oven pans	1.50
copper teakettle, re-bottomed . . .	1.25
Paid The Thomas A. Lane Co., pipe, coupling, etc.	2.90
Pike & Heald Co., plumbing mate- rial	6.21
George W. Rief, 1 pump handle .	.90
Irving L. Stickney, rubber cement .	.40
Joseph St. Laurent, lumber . . .	18.26

 \$381.99

SUNDRIES.

Paid American Express Co., express on castings and seeds	\$4.12
Concord & Montreal Railroad, freight on soap and horses . . .	7.58
Frank H. Challis, 25 copies rules and regulations	2.00
Emergency Hand Fire Extinguisher Co., 12 small extinguishers . . .	12.00
Wm. Hayes, 6 cider barrels . . .	6.00
George Hook, castrating pigs . . .	2.00
Frank R. Hazelton, 500 feet hose .	175.00
O. Hardy, 1 pruner	1.00

Paid E. G. Libbey, cash paid :

1 pair horse clippers	\$2.00	
Expenses to Laconia for J. O'Brien, escaped prisoner	6.69	
Expenses to Boston (2 men), for return of James Quinn, runaway	9.25	
Expenses to Lowell, return of Henry Rivers	2.78	
"Daily Union," 1894	6.00	
Postage stamps . . . . .	.60	
Postoffice box rent	3.00	
Paid James Morse, running boiler	10.00	
Edward Merrill, scraping snow and cutting ice	11.00	
Sampson, Murdock & Co., 1 directory	2.00	
"The New England Homestead," 1 subscription to May 1, 1895	1.50	
Paid J. Arthur Williams, printing :		
100 invitations . . . . .	.75	
125 bills of fare	1.00	
Paid Mark A. Torrey Co., soap and soap stock	12.15	
	<hr/>	\$278.42
Total expenditures		<hr/> \$8,486.35

Indigent Soldiers.

Appropriation	\$250.00	
Transferred from reserved fund	42.00	
	<hr/>	\$292.00

EXPENDITURES.

GROCERIES.

Paid S. L. Flanders	\$8.00
Griffin Brothers	70.00

Paid O. D. Knox & Co.	. . .	\$24.00	
Thomas H. Mahoney	. . .	12.00	
D. M. Poore & Son	. . .	62.00	
		<hr/>	\$176.00

FUEL.

Paid Dunlap & Wason Coal Co.	. . .	\$6.00	
C. E. Pollard	. . .	6.00	
		<hr/>	\$12.00

BOARD AND CARE.

Paid Ellen McGrath	\$98.00
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SUNDRIES.

Paid Frederick Perkins, M. D., medical examinations		\$6.00	
Total expenditures	<hr/>	\$292.00

Women's Aid & Relief Hospital.

Appropriation	\$600.00
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EXPENDITURES.

Paid Women's Aid and Relief Hospital, amount appropriated for hospital purposes	\$600.00
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Free Beds, Elliot Hospital.

Appropriation	\$600.00
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EXPENDITURES.

Paid Elliot Hospital, amount appropriated for free beds	\$600.00
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Sacred Heart Hospital.

Appropriation	\$600.00
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EXPENDITURES.

Paid Sacred Heart Hospital, amount appropriated for hospital purposes	\$600.00
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Decoration of Soldiers' Graves.

Appropriation	\$350.00
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EXPENDITURES.

Paid Louis Bell Post No. 3, G. A. R.	\$296.95	
The Head & Dowst Co.	53.05	
	<hr/>	\$350.00

Militia.

Appropriation	\$900.00
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EXPENDITURES.

Paid Amoskeag Veterans	\$100.00	
Brigade Headquarters	50.00	
First Regiment Band	100.00	
Lafayette Guards	100.00	
Manchester Cadets	100.00	
Manchester War Veterans	100.00	
Regimental Headquarters	50.00	
Scammon Rifles	100.00	
Sheridan Guards	100.00	
Upton Light Infantry	100.00	
	<hr/>	
Total expenditures		\$900.00

Abatement of Taxes.

Appropriation	\$3,000.00	
Balance old account	503.13	
Transferred from reserved fund	1,415.63	
	<hr/>	\$4,918.76

EXPENDITURES.

Paid sundry persons on taxes abated	\$4,918.76
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State Tax.

Appropriation	\$65,615.00
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EXPENDITURES.

Paid Solon A. Carter, state treasurer	\$65,615.00
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County Tax.

Appropriation	\$63,895.37
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EXPENDITURES.

Paid Edwin F. Jones, county treasurer	\$63,895.37
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Resolution Raising Money and Making Appropriations for the Year 1894.

Resolved by the Mayor, Aldermen, and Common Council of the City of Manchester, in City Council assembled, as follows :

That the sum of one hundred thousand dollars (\$100,000) be borrowed for the use of the city for the following permanent municipal improvements, viz.:

Fifty-five thousand dollars (\$55,000) for new sewers; twenty thousand dollars (\$20,000) for new highways; twenty thousand dollars (\$20,000) for South Main street bridge; and five thousand dollars (\$5,000) for the development and improvement of Derryfield and Stark parks; and that the joint standing committee on finance are hereby authorized to issue bonds of the city for said amount of one hundred thousand dollars (\$100,000) payable April 1, 1914, with interest coupons attached, for the payment of interest semi-annually at four per cent; said bonds to be signed by the city treasurer and countersigned by the mayor; said bonds to be sold to the highest responsible bidder, upon a call issued by the joint standing committee on finance for bids.

Resolved, further, That the sum of five hundred and one thousand one hundred and thirty-five and thirty-seven one hundredths dollars (\$501,135.37) be raised for the use of the city for the year one thousand eight hundred and ninety-four (1894) by tax on the polls and estates liable to be taxed thereon, which sum, together with the one hundred thousand dollars to be borrowed as above provided, and with such unappropriated money as may be now in the city treasury, or may hereafter come into it, shall be appropriated as follows, viz.:

CENTRAL DEPARTMENT.

Interest	\$24,500.00
Reserved fund	20,000.00
City hall	2,700.00
Printing and stationery	2,000.00
Incidental expenses	12,000.00
Mayor's incidentals	300.00
City officers' salaries	16,700.00
Sinking fund	5,000.00
Auditor's department	2,000.00

STREET AND SEWER DEPARTMENT.

Street and park commission	\$3,750.00
Repairs of highways	24,000.00
South Main-street bridge	20,000.00
New highways	20,000.00
Land taken for highways	8,000.00
Watering streets	4,000.00
Paving streets	6,000.00
Macadamizing streets	15,000.00
Grading for concrete	4,000.00
Scavenger teams	16,000.00
Street sweeping	1,200.00
Lighting streets	43,000.00
Bridges	3,000.00
City teams	6,300.00
Sewers and drains	6,000.00
Other new sewers	55,000.00
Snow and ice	4,000.00
ENGINEER'S DEPARTMENT	\$4,300.00
HEALTH DEPARTMENT	\$3,500.00

SCHOOL DEPARTMENT.

Repairs of schoolhouses	\$5,000.00
Fuel	5,500.00

APPROPRIATIONS.

689

Furniture and supplies	\$700.00
Books and stationery	200.00
Printing and advertising	350.00
Contingent expenses	1,100.00
Care of rooms	4,400.00
Evening schools	1,200.00
Teachers' salaries	63,000.00
Evening schools, mechanical drawing	550.00
Free text-books	4,500.00
Manual training	1,500.00
Pearl-street schoolhouse	8,500.00
McGregorville schoolhouse	12,000.00
Webster-street schoolhouse	3,000.00
CITY LIBRARY	\$4,500.00

FIRE.

Fire department	\$50,000.00
Fire-alarm telegraph	1,400.00
Hydrant service	13,925.00
South Manchester hosehouse	1,500.00
Fulton engine house	1,000.00
POLICE	\$40,400.00

PUBLIC BUILDINGS.

Repairs of buildings	\$4,000.00
Ward 5 wardroom	3,000.00
Lincoln school curbing	1,000.00

PUBLIC PLACES.

Commons	\$3,500.00
Stark and Derryfield parks	5,000.00
Pine Grove cemetery	9,000.00
Valley cemetery	3,000.00
Amoskeag cemetery	150.00

PATRIOTIC, CHARITABLE, AND PHILANTHROPIC.

Paupers off the farm	\$7,000.00
City farm	8,000.00

Indigent soldiers	\$250.00
Women's Aid and Relief Hospital	600.00
Free beds, Elliot Hospital	600.00
Decoration of soldiers' graves	350.00
Militia	900.00
Sacred Heart Hospital	600.00

TAXES.

Abatement of taxes	\$3,000.00
State taxes	65,615.00
County tax	63,895.37

\$735,935.37

ESTIMATED RECEIPTS FOR THE YEAR.

Amount to be raised by tax	\$501,135.37
Insurance tax	4,300.00
Railroad tax	25,000.00
Savings bank tax	77,000.00
Literary fund	6,000.00
City hall	2,000.00
Tuition	500.00
Police department	9,000.00
Pine Grove cemetery	4,000.00
Valley cemetery	1,500.00
County of Hillsborough	1,500.00
City farm	3,500.00
Interest on taxes	500.00
Bonds	100,000.00

\$735,935.37

TABULAR STATEMENT OF TAXATION BY BOARD OF ASSESSORS APRIL 1, 1890, '91, '92, '93, '94.

Resident and non-resident.	Polls.		Dogs.*			Real estate, value.	Stock in trade.	Money on hand, at interest, or on deposit.	Horses, asses, and mules, over 18 months old.		Carriages, value.	Cows, oxen, and other neat stock over 18 months old.	
	No.	Value.	Male	Female.	Tax.				No.	Value.		No.	Value.
1890.....	9,723	\$972,300.00	710	51	\$812.00	\$13,898,120.00	\$2,351,102.00	\$378,226.00	1,797	\$172,186.00	\$50,400.00	717	\$15,470.00
1891.....	10,367	1,036,700.00	713	49	811.00	14,124,570.00	2,332,752.00	382,026.00	2,151	185,866.00	53,496.00	671	12,944.00
1892.....	10,673	1,067,300.00	700	43	786.00	14,910,978.00	2,355,780.00	375,694.00	2,235	200,182.00	53,590.00	616	12,580.00
1893.....	11,835	1,183,500.00	.....	.....	.....	16,003,370.00	2,554,818.00	425,334.00	2,777	210,032.00	59,516.00	551	11,656.00
1894.....	12,103	1,210,300.00	.....	.....	.....	16,956,070.00	2,421,954.00	519,500.00	2,608	200,376.00	57,526.00	452	9,618.00

Hogs.	Sheep over 6 months old.		Fowls.		Stock in banks and other corporations.	Stock in public funds and bonds.	Factories and their machinery.		Total value.	Rate of tax per hundred.	Tax levied.	Total, including dog tax.
	No.	Value.	No.	Value.			Value.	Value.				
104	\$1,040.00	17	\$46.00	.....	\$280,500.00	\$19,900.00	\$6,068,450.00	\$24,207,740.00	\$1.91	1\$462,057.17	\$462,769.00	
115	932.00	12	30.00	.....	290,100.00	19,900.00	6,432,576.00	24,872,492.00	1.78	442,730.76	443,541.76	
85	572.00	14	42.00	.....	301,700.00	4,400.00	6,649,000.00	25,932,044.00	1.95	505,679.17	506,465.17	
12	120.00	13	38.00	.....	317,600.00	5,600.00	6,667,906.00	27,439,742.00	1.85	507,640.68	507,640.68	
73	820.00	40	80.00	.....	230,000.00	22,100.00	6,763,050.00	28,391,710.00	1.78	505,372.44	505,372.44	

* Dog tax repealed. See chapter 6, January laws of 1893.

† Tax on the Manchester Building Association, \$34,500 at 1 per cent. See Laws of 1889, chapter 12.

Assessors' Oath.

We, the Assessors of the City of Manchester, do solemnly swear that in making the invoice for the purpose of assessing the foregoing taxes, we appraised all taxable property at its full value, and as we would appraise the same in payment of a just debt due from a solvent debtor. *So help us God.*

Valuation and Taxes.

The amount of taxes assessed on the polls and on the real and personal estate, within the city of Manchester, N. H., for the year 1894, was as follows :

	Valuation.	Rate per \$1,000.	Tax.
Real estate . . .	\$23,719,120	\$17.80	\$422,200.34
Personal property . .	3,462,290		61,628.76
	<hr/>		<hr/>
	\$27,181,410		\$483,829.10
No. of polls, 12,103 .	1,210,300	\$17.80	21,543.34
	<hr/>		<hr/>
Totals . . .	\$28,391,710		\$505,372.44

The share distributed to Manchester of the amount of the tax assessed, as per returns made by the corporations to state treasurer :

On railroads	\$28,301.49
On savings banks	72,379.38
On insurance companies	2,598.75
On literary fund	7,252.97
	<hr/>
Grand tax total	\$615,905.03
Appropriated and assessed in 1894 for city appropriation	\$483,925.00
Appropriated and assessed in 1894, for state tax	65,615.00

Appropriated and assessed in 1894, for county tax	\$63,895.37
Overlay *	2,469.66
Grand tax total	<u>\$615,905.03</u>

For further information in relation to taxes collected by the state, see State Treasurer's Report.

TABLE OF TAXES DUE AND UNCOLLECTED.

YEAR.	Due June 1, 1894, assessed in 1894.	Discounts and abatements, 1894.	Collected in 1894.	Due December 31, 1894.
Taxes of 1885.....	\$1,205.71	.....	.....	\$1,205.71
Taxes of 1886.....	1,264.85	.....	.....	1,264.85
Taxes of 1887.....	1,163.94	.....	.....	1,163.94
Taxes of 1888.....	1,580.13	.....	.....	1,580.13
Taxes of 1889.....	1,397.03	.....	.....	1,397.03
Taxes of 1890.....	1,692.81	.....	\$5.73	1,687.08
Taxes of 1891.....	2,075.32	.....	103.35	1,971.97
Taxes of 1892.....	3,032.82	\$33.53	379.14	2,620.15
Taxes of 1893.....	{ 51,056.45 1,443.76	2,098.31	45,829.30	4,572.60
Taxes of 1894.....	505,372.44	2,778.72	463,669.07	38,924.65
Totals.....	\$571,285.26	\$4,910.56	\$509,986.59	\$56,388.11

* This overlay consists of \$4,237.07, assessed by the local assessors under the provisions of General Laws, chapter 57, section 4; less \$1,767.41 received from railroads, banks, insurance companies, and literary fund below the amount estimated by the city councils.

TAX VALUATIONS, ETC., FROM 1890 TO 1894, INCLUSIVE.

Year.	Valuation.	Taxes.	No. polls.	Poll tax.	Val. of poll.
1890.....	\$24,207,740	\$462,869.17	9,723	\$1.91	\$100
1891.....	24,872,492	443,541.76	10,367	1.78	100
1892.....	25,932,044	506,465.17	10,673	1.95	100
1893.....	27,439,742	507,640.68	11,835	1.85	100
1894.....	28,391,710	505,372.44	12,103	1.78	100

For years prior to 1890, see reports of 1890 and 1891.

Settlement of Account of George E. Morrill, Tax Collector for City of Manchester, N. H., June 1, 1894.

	Amount outstanding June 1, 1893.	Collected.	Abated.	Balance outstanding June 1, 1894.
Tax list, 1885 .	\$1,205.71			\$1,205.71
1886 .	1,264.85			1,264.85
1887 .	1,163.94			1,163.94
1888 .	1,580.13			1,580.13
1889 .	1,397.03			1,397.03
1890 .	1,692.81	\$5.73		1,687.08
1891 .	2,075.32	103.35		1,971.97
1892 .	3,032.82	379.14	\$33.53	2,620.15

Amount collected . \$488.22

Credited by cash, as per treasurer's receipts Nos. 72, 73, 74 \$488.22

Interest collected, 1890 . . \$1.86
1891 . . 20.92
1892 . . 34.62
1893 . . 896.96
\$954.36

Credited by cash, as per treasurers receipts Nos. 69, 70 \$954.36

DR.

1893.	To resident list . . .	\$506,486.72	
	non-resident list . . .	1,153.96	
	voluntary taxes . . .	1,409.90	
	cash overpaid treasurer . .	33.86	
		<u> </u>	\$509,084.44

CR.

1891.	By cash paid city treasurer, as		
	per receipts . . .	\$496,866.76	
	abatements . . .	3,045.60	
	unpaid taxes, June 1, 1894	4,572.60	
	cash on deposit, N. H.		
	Trust Co. . . .	3,834.48	
	Cash on deposit, Com-		
	monwealth Bank . . .	765.00	
		<u> </u>	\$509,084.44

CITY OF MANCHESTER TO GEORGE E. MORRILL.

DR.

To salary for year ending June 1, 1894	\$1,650.00	
commission on old taxes . . .	29.85	
	<u> </u>	\$1,679.85

CR.

By cash paid by treasurer, on account		
of salary	\$800.00	
balance paid by treasurer, as per		
bill	879.85	
	<u> </u>	\$1,679.85

MANCHESTER, N. H., November 20, 1894.

I hereby certify that I have examined the account of George E. Morrill, tax collector of said Manchester, and find the same correct, as above stated.

JAMES E. DODGE,
City Auditor.

Some Laws and Decisions relating to Exemptions from Taxation.

CONSTITUTION OF NEW HAMPSHIRE, ARTICLE 82, PAGE 38,
PUBLIC STATUTES.

ENCOURAGEMENT OF LITERATURE, ETC.

ARTICLE 82. "Knowledge and learning generally diffused through a community being essential to the preservation of a free government, and spreading the opportunities and advantages of education through the various parts of the country being highly conducive to promote this end, it shall be the duty of the legislators and magistrates, in all future periods of this government, to cherish the interest of literature and the sciences, and all seminaries and public schools ; to encourage private and public institutions, rewards, and immunities for the promotion of agriculture, arts, sciences, commerce, trades, manufactures, and natural history of the country ; to countenance and inculcate the principles of humanity and general benevolence, public and private charity, industry and economy, honesty and punctuality, sincerity, sobriety, and all social affections and generous sentiments among the people ; *provided, nevertheless*, that no money raised by taxation shall ever be granted or applied for the use of the schools or institutions of any religious sect or denomination."

PUBLIC STATUTES, CHAPTER 55, SECTION 2.

SECTION 2. "Real estate, whether improved or unimproved, and whether owned by residents or others, is liable to be taxed, except houses of public worship, twenty-five hundred dollars of the value of parsonages owned by religious societies and occupied by their pastors, schoolhouses, seminaries of learning, real estate of the United States, state, or town used for public purposes, and almshouses on county farms."

SECTION 11. "Towns may by vote exempt from taxation for a term not exceeding ten years any manufacturing establishment proposed to be erected or put in operation therein, and the capital to be used in operating the same, unless such establishment has been previously exempted from taxation by some town."

OPINION OF THE SUPREME COURT.

58 N. H. Rep. page 623. "The exemption in each case is limited to ten years. A perpetual alienation of the whole power of taxation would be the destruction of government; and the dangerous tendency of legislation suspending any part of that power, for any period, is manifest. *P. Bank v. Billings*, 4 Pet. 514, 561. So long as the existing laws remain unrepealed, and the constitutional construction heretofore adopted remains unchanged, contracts hereafter made under those laws and that construction will be valid. If the legislature for any reason wish to prevent the making of any more such contracts, their object can be accomplished by a repeal of the laws authorizing them."

Hospitals, etc., are exempt from taxation in their respective charters as "being of the nature of a public charity," as follows:

Gale Home for Aged and Destitute Women, N. H. Laws of 1889, chapter 199.

Elliot Hospital, N. H. Laws of 1881, chapter 178.

Manchester Women's Aid & Relief Society, organized in January, 1875; N. H. Laws, 1891, chapter 283.

Orphanage and Home for Old Ladies (Catholic) on Hanover street, N. H. Laws, 1883, chapter 56.

Schedule of Property used for Religious, Charitable, and Educational Purposes, and Exempt from Taxation by Law, not including that Owned by the City of Manchester.

Convent, Sisters Jesus Mary, French Catholic; East Spruce street, near Beech:

Building	\$10,000.00	
13,000 square feet of land	2,600.00	
		<hr/> \$12,600.00

Convent, Sisters of Mercy, Catholic; 415 Union street, corner Laurel:

Building	\$30,000.00
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12,600 square feet of land . . .	\$6,300.00	
	<u> </u>	\$36,300.00
Mount St. Mary's Academy, Catholic ; from convent lot east to Beech street :		
Building	\$25,000.00	
31,500 square feet of land . . .	9,450.00	
	<u> </u>	\$34,450.00
Lot south side Laurel street, corner Union street, Catholic ; McDonald school :		
Building	\$35,000.00	
10,800 square feet of land . . .	5,000.00	
	<u> </u>	\$40,000.00
Hospital of the Sacred Heart and Old Ladies' Home, Catholic ; Amherst and Hanover streets :		
Building	\$8,000.00	
40,500 square feet of land . . .	30,375.00	
	<u> </u>	\$38,375.00
St. Patrick's Orphan Asylums, Catholic ; 184 Hanover street :		
Building	\$35,000.00	
40,500 square feet of land . . .	40,500.00	
	<u> </u>	\$75,500.00
St. Joseph's High School, Catholic ; Lowell street, corner of Birch :		
Building	\$12,000.00	
8,000 square feet of land . . .	8,000.00	
	<u> </u>	\$20,000.00
Union-street school, Catholic ; corner Union and Laurel streets :		
Building	\$4,000.00	
5,000 square feet of land . . .	2,500.00	
	<u> </u>	\$6,500.00
St. Agnes' school, Catholic ; corner Cedar and Pine streets :		
Building	\$12,000.00	
20,000 square feet of land . . .	3,200.00	
	<u> </u>	\$15,200.00

St. Joseph's school for girls, Catholic ; corner Pine and Lowell streets :

Building	\$10,000.00	
Land included in cathedral lot.	—————	\$10,000.00

Convent of the Holy Angels, French Catholic ; Beauport street, corner Wayne, West Manchester :

Building	\$15,000.00	
22,500 square feet of land	4,500.00	
	—————	\$19,500.00

Orphanage school, Beauport, Wayne, and Putnam streets ; French Catholic :

Building	\$25,000.00	
30,000 square feet of land	6,000.00	
	—————	\$31,000.00

St. Augustine's academy, French Catholic ; corner Beech and Spruce streets :

Building	\$8,000.00	
15,000 square feet of land	4,500.00	
	—————	\$12,500.00

St. Mary's parochial school, French Catholic ; corner Wayne and Cartier streets :

Building	\$12,000.00	
25,000 square feet of land	2,000.00	
	—————	\$14,000.00

Residence priest St. Augustine's church, French Catholic ; No. 383 Beech street :

Building	\$6,000.00	
7,500 square feet of land	1,875.00	
	—————	\$2,500.00
	\$7,875.00	

Orphan children's school, parish St. Augustine ; 251, 253 Lake avenue :

Building	\$12,000.00	
10,000 square feet of land	5,000.00	
	—————	\$17,000.00

Residence priest St. Anne's church, Catholic; No.

231 Merrimack street:

Building	\$5,000.00	
8,820 square feet of land	2,646.00	
	<hr/>	\$2,500.00
	\$7,646.00	

Residence Catholic bishop; No. 145 Lowell street:

Building	\$40,000.00	
24,000 square feet of land	12,000.00	
	<hr/>	\$2,500.00
	\$52,000.00	

Residence priest St. George's church, French Catholic; Orange street, corner Pine:

Building	\$2,500.00	
10,000 square feet of land	4,000.00	
	<hr/>	\$2,500.00
	\$6,500.00	

Residence priest St. Mary's church, French Catholic; 376 Beauport street, West Manchester:

Building	\$2,500.00	
5,000 square feet of land	1,000.00	
	<hr/>	\$2,500.00
	\$3,500.00	

St. Anne's church, Catholic; Union street, corner Merrimack:

Building	\$30,000.00	
10,180 square feet of land	5,090.00	
	<hr/>	\$35,090.00

St. Augustine's church, French Catholic; Beech street, corner East Spruce:

Building	\$28,000.00	
13,000 square feet of land	3,250.00	
	<hr/>	\$31,250.00

St. Joseph's cathedral and chapel, Catholic; Pine street, corner Lowell:

Building	\$70,000.00	
40,000 square feet of land	30,375.00	
	<hr/>	\$100,375.00

St. Mary's church, French Catholic ; Beauport street,
corner Wayne, West Manchester :

Building	\$25,000.00	
70,000 square feet land . . .	14,000.00	
	—————	\$39,000.00

St. Raphael's church and school, German Catholic ;
Third street, corner Ferry, West Manchester :

Building	\$35,000.00	
8,000 square feet of land . . .	3,400.00	
	—————	\$38,400.00

St. George's church, French Catholic ; Pine street,
corner Orange :

Building	\$75,000.00	
18,690 square feet of land . . .	7,614.00	
	—————	\$82,614.00

St. Patrick's church and school, Catholic ; Kelley
street, Cartier street, and Cooledge avenue :

School building	\$20,000.00	
56,281 square feet of land . . .	4,502.00	
	—————	\$24,502.00

First Baptist church ; Union street, corner Concord :

Building	\$28,000.00	
11,250 square feet of land . . .	6,750.00	
	—————	\$34,750.00

First Freewill Baptist church ; Merrimack street, cor-
ner Chestnut :

Building	\$12,400.00	
12,600 square feet of land . . .	12,600.00	
	—————	\$25,000.00

Second Baptist church ; Merrimack street, near
Pine :

Building	\$9,000.00	
9,450 square feet of land . . .	3,780.00	
	—————	\$12,780.00

People's Baptist church ; Chestnut street, corner Concord :

Building	\$8,000.00	
3,200 square feet of land	2,000.00	
	<hr/>	\$10,000.00

First Congregational church ; Hanover street, corner Union :

Building	\$30,000.00	
43,200 square feet of land	34,560.00	
	<hr/>	\$64,560.00

Second Congregational church ; Market street, corner Franklin :

Building	\$25,000.00	
19,000 square feet of land	19,000.00	
	<hr/>	\$44,000.00

Third Congregational church ; South Main street, corner Milford, West Manchester :

Building	\$8,000.00	
23,000 square feet of land	3,000.00	
	<hr/>	\$11,000.00

First M. E. Church ; Valley street, corner Jewett :

Building	\$8,000.00	
11,400 square feet of land	1,000.00	
	<hr/>	\$9,000.00

St. Paul's M. E. church ; Union street, corner Amherst :

Building	\$25,000.00	
10,010 square feet of land	6,000.00	
	<hr/>	\$31,000.00

St. James M. E. church ; Pennacook street, corner Pine :

Building	\$9,000.00	
11,000 square feet of land	2,200.00	
	<hr/>	\$11,200.00

Grace church, Episcopal ; Lowell street, corner Pine :

Building	\$20,000.00	
9,300 square feet of land	6,975.00	
	—————	\$26,975.00

First Unitarian church ; Concord street, corner Beech :

Building	\$24,000.00	
13,500 square feet of land	6,000.00	
	—————	\$30,000.00

First Universalist church ; Lowell street, near Elm :

Building	\$17,000.00	
10,000 square feet of land	15,000.00	
	—————	\$32,000.00

Christian church, Protestant ; Pine street, corner Merrimack :

Building	\$6,000.00	
9,000 square feet of land	6,700.00	
	—————	\$12,700.00

First Presbyterian church, German ; Second street, corner Bath, West Manchester :

Building	\$3,000.00	
10,000 square feet of land	2,500.00	
	—————	\$5,500.00

Swedish Lutheran church, Protestant ; Sagamore street, corner Pine :

Building	\$7,500.00	
10,950 square feet of land	2,000.00	
	—————	\$9,500.00

Swedish Baptist church ; Arlington street, near Maple :

Building	\$5,000.00	
4,432 square feet of land	1,100.00	
	—————	\$6,100.00

Second Advent church ; Amherst street, between
Pine and Union :

Building	\$5,100.00	
4,500 square feet of land	3,375.00	
	<hr/>	\$8,475.00

City Mission chapel, Protestant ; Merrimack street,
corner of Beech :

Building	\$7,000.00	
12,600 square feet of land	6,000.00	
	<hr/>	\$13,000.00

Westminster Presbyterian church ; Brook street, cor-
ner Hazel :

Building	\$15,000.00	
10,000 square feet of land	2,500.00	
	<hr/>	\$17,500.00

South Manchester Union chapel, Protestant ; Elm
street, south :

Building	\$2,500.00	
10,747 square feet of land	1,000.00	
	<hr/>	\$3,500.00

Episcopal Mission church ; North Main street, cor-
ner School, West Manchester :

Building	\$3,500.00	
19,412 square feet of land	4,000.00	
	<hr/>	\$7,500.00

Residence pastor St. Paul's M. E. church ; Union
street, near Amherst :

Building	\$3,000.00	
	<hr/>	\$2,500.00

Residence pastor First Congregational church ; No.
590 Beech street, near Bridge :

Building	\$5,000.00	
8,100 square feet of land	2,400.00	
	<hr/>	\$2,500.00
		\$7,400.00

Residence pastor Grace Episcopal church ; corner of
Harrison and Union streets :

Building	\$6,000.00	
15,000 square feet of land	3,750.00	
	<hr/>	\$2,500.00
		\$9,750.00

German School Society ; Third, Bath, and Ferry
streets :

Building	\$4,500.00	
10,187 square feet of land	2,500.00	
	<hr/>	\$7,000.00

Elliot Hospital, Protestant ; East Manchester :

Building	\$23,000.00	
Land	7,000.00	
	<hr/>	\$30,000.00

Elliot Hospital lot ; Hanover street, corner Chestnut :

Building	\$3,000.00	
Land	13,000.00	
	<hr/>	\$16,000.00

Elliot Hospital :

Land and buildings, Main street	\$4,000.00	
Land and building, Quincy street	2,500.00	
	<hr/>	\$6,500.00

Women's Aid and Relief Hospital ; Pearl street, cor-
ner Beech :

Building	\$15,000.00	
57,530 square feet of land	10,000.00	
	<hr/>	\$25,000.00

Manchester Children's Home ; Webster street :

Building	\$20,000.00	
55,000 square feet of land	2,500.00	
	<hr/>	\$22,500.00

Residence pastor Swedish Lutheran church ; Saga-
more street, corner Pine :

Building	\$3,000.00	
10,200 square feet of land	1,020.00	
	<hr/>	\$2,500.00
		\$4,020.00

Gale Home :

One half Manchester Bank block, Elm street	\$38,000.00	
One half Martin's block, Elm street	25,000.00	
Land and building, Pearl street, corner Ash	25,000.00	
	<u> </u>	\$88,000.00

Recapitulation.

EXEMPT FROM TAXATION.

Church property, Catholic . . .	\$356,729.00	
Convent property, Catholic . . .	68,400.00	
Parochial residences, Catholic . . .	12,500.00	
Parochial schools, Catholic . . .	195,152.00	
Hospitals and other charitable insti- tutions	113,875.00	
	<u> </u>	\$746,656.00
Church property, Protestant . . .	\$426,040.00	
Parochial residences, Protestant . . .	10,000.00	
Private school property, Protestant . . .	7,000.00	
Hospitals and other charitable institu- tions	188,000.00	
	<u> </u>	\$631,040.00

TAXABLE.

Land and buildings, Catholic . . .	\$65,021.00	
Land and buildings, Protestant . . .	14,170.00	
	<u> </u>	\$79,191.00
Total exempt and taxable		<u> </u>
		\$1,456,887.00

SCHEDULE OF PROPERTY USED FOR MANUFACTURING PURPOSES EXEMPT BY LAW FROM
TAXATION.

OWNER.	Occupant.	Location.	Goods manu- factured.	Exemption commenced.	Exemption ceases.	Unex- pired term.	Valuation.
Amoskeag Mfg. Co.	Amoskeag Mfg. Co.	Jefferson mill	Cotton	April 1, 1887	April 1, 1897	3 years.	\$1,000,000.00
Stark mills.	Stark mills	Mill W. side, N. McGregor bridge ..	"	"	" 1, 1900	6 "	200,000.00
William W. Hubbard ..	William W. Hubbard ..	Land and building Dean ave	Wood	Dec. 1, 1885	" 1, 1896	2 "	22,100.00
Manchester Shoe Mfg. Co.	Kimball Bros.	{ Land and building, Hallsville.	"	June 1, 1884	" 1, 1895	1 "	37,500.00
West Side Shoe Co.	* Crafts & Green.	{ Stock and machinery, Hallsville.	Shoes	" 1, 1884	" 1, 1895	1 "	30,000.00
F. M. Hoyt & Co.	* F. M. Hoyt & Co.	Land and buildings, West Hancock ..	"	" 16, 1890	" 1, 1901	7 "	37,500.00
		1½ acres land and building.	"	Oct. 6, 1891	" 1, 1902	8 "	20,700.00
Elliott Mfg. Co.	† Elliott Mfg. Co.	58,466 ft. land and factory, Valley ..	Silk	April 5, 1892	" 1, 1903	9 "	32,000.00.
Kimball Carriage Co.	† Kimball Carriage Co.	Stock and machinery.	Carriages etc.	" 1, 1890	" 1, 1900	6 "	32,000.00
Kennedy Land Co.	Josselyn & Seavey ..	Land and building, Silver and Lincoln ..	"	Dec. 12, 1892	" 1, 1903	9 "	11,000.00
Rimmon Mfg. Co.	Jennings & Stevens ..	{ 1 acre land and building south of ..	Furniture	" 12, 1892	" 1, 1903	9 "	8,000.00
Dana & Provost	* Dana & Provost	{ Stock and machinery.	"	April 1, 1893	" 1, 1903	9 "	6,000.00
Eaton Heights Shoe Co. ....	.....	Land and buildings, 20,000 feet, Kel- ley street.	Wood	" 1, 1893	" 1, 1903	9 "	25,000.00
So. Manchester Bldg. Asso. ....	.....	Union street, at Junction with C. & P. R. R.	Shoes	June 5, 1894	June 5, 1904	10 "	20,000.00
Eureka Shoe Co. ....	.....	{ Land and building	"	Jan. 1, 1895	Jan. 1, 1905	10 "	30,000.00
Redman & Eaton Shoe Co. ....	.....	{ Land and buildings, 75,000 feet, ..	"	" 1, 1895	" 1, 1905	10 "	50,000.00
		{ Lincoln and Silver streets	"	Dec. 4, 1894	Dec. 4, 1904	10 "	35,000.00
		{ Land, buildings, machinery, and materials	"				
		.....					\$1,596,800.00

* Stock and machinery taxable.

† Stock and machinery, — value not determined.

TABULAR STATEMENT OF BONDED DEBT, CITY OF MANCHESTER, N. H.. FROM JAN. 1 TO DEC. 31, 1894.*

YEAR.	Six per cent to build water-works.†	At four per cent, water-works.‡	At five per cent, water bonds.	At 4½ per cent, water bonds.	Five per cent, cemetery bonds§	\$70,000 issued Oct. 31, 1863. \$50,000 issued July 1, 1864. Six per cent, to fund debts.	Issued July 1, 1881, four per cent, to build McGregor bridge.
1890.....	\$400,000	\$200,000	.....	.....	\$13,850	\$120,000	\$60,000
1891.....	400,000	200,000	.....	.....	18,850	120,000	60,000
1892.....	300,000	300,000	.....	.....	20,000	120,000	60,000
1893.....	300,000	300,000	\$100,000	\$100,000	26,000	120,000	60,000
1894.....	300,000	350,000	100,000	100,000	31,000	50,000	60,000

Issued April 1, 1885, 4 per cent, to fund debts.	Four per cent improvement bonds.	Total.	Amount of 6 per cent bonds due and paid.	Amount of 6 per cent bonds re-funded at 4 per cent.	Total amount of bonded debt, December 31, 1894.	Amount of 6 per cent city bonds on which interest has ceased, not yet presented for payment.	Amount of 6 per cent water bonds on which interest has ceased, not yet presented for payment.
\$155,000	.....	\$948,850	\$99,900†	\$100,000	\$948,850	.....	\$100
155,000	.....	953,850	100	.....	953,850	.....	.....
155,000	.....	955,000	99,900	100,000	955,000	.....	100
155,000	\$100,000	1,261,100	65,500	.....	1,195,600	\$4,500	100
155,000	200,000	.....	50,000	.....	1,296,000	.....	.....

REMARKS.—The city guarantees the perpetual care of lots in the cemeteries of the city to parties who pay \$100 and upward. There are \$31,000 in cemetery bonds, so called, not negotiable, in the hands of the city treasurer, which are included in the \$1,296,000.

* \$70,000, issued October 31, 1863, are paid; \$100,000 issued July 1, 1893, improvement bonds, 4 per cent; \$100,000 issued August 1, 1893, water bonds, 5 per cent; \$100,000 issued November 1, 1893, water bonds, 4½ per cent; \$50,000 issued October 1, 1894, water bonds, 4 per cent.

† \$400,000 water bonds, issued January 1, 1872; \$100,000 of these bonds re-funded January 1, 1887; \$100,000 re-funded January 1, 1892.

‡ \$200,000 water bonds, issued July 1, 1874; \$100,000 of these bonds re-funded July 1, 1890.

§ \$2,200 cemetery bonds, issued in 1884, and other additional bonds each year. The city guarantees the perpetual care of lots in the cemeteries. Bonds payable July 1, 1913.

Total amount of bonded debt, including cemetery bonds	\$1,296,000.00
Net indebtedness for water purposes	850,000.00

Net debt after deducting water debt	\$446,000.00
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As shown in the assessors' books for the year 1894:

The assessed value of personal property, including poll tax	\$4,735,368.00
The assessed value of real estate	23,656,342.00

Total value for taxation	\$28,391,710.00
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Tax rate, 1.78 per cent on a hundred.

Per cent of net indebtedness (excluding debt for water purposes) to assessed valuation	1.57
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Per cent of net indebtedness (including debt for water purposes) to assessed valuation	4.565
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Population, census of 1890	43,983
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Population, census of 1880	32,458
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Increase of population in ten years	11,525
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Increase of population since 1890 (estimated)	5,000
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No issue of bonds has ever been contested.

The interest on the debt has always been promptly paid at maturity.

None of the bonds are stated specifically as being payable in gold.

None of the bonds can be called for redemption.

A sinking fund was established in 1893.

The power of the city to borrow money in relation to the water-works is limited to the sum of \$600,000 by section 6, chapter 70, New Hampshire Laws of 1871, entitled "An act to enable the city of Manchester to establish water-works," except as further extended, an amount of \$300,000, by laws of 1891, chapter 26.

STATEMENT IN RELATION TO THE BONDED DEBT OF THE CITY OF MANCHESTER, N. H.

Date of issue.	Description.	Number.	Denomina- tion.	Amount.	Total.	Date when the principal is payable.	INTEREST.		
							Rate per cent.	When payable.	Where payable.
Oct. 1, 1894	Water bonds.	50	\$1,000	\$50,000	\$50,000	Oct. 1, 1914	4	Semi-annual	At Suffolk Bank, Boston, Mass.
Nov. 1, 1893	"	100	1,000	\$100,000	100,000	Nov. 1, 1913	4½	"	"
Aug. 1, 1893	"	100	1,000	\$100,000	100,000	Aug. 1, 1913	5	"	"
Jan. 1, 1892	"	100	1,000	\$100,000	100,000	Jan. 1, 1912	4	"	"
1, 1872	"	60	100	6,000	100,000	1, 1897	6	"	At treasurer's office, Manchester, N. H.
1, 1872	"	62	500	31,000		1, 1897	6	"	
1, 1872	"	63	1,000	63,000		1, 1897	6	"	
1, 1872	"	60	100	\$6,000	100,000	1, 1902	6	"	"
1, 1872	"	62	500	31,000		1, 1902	6	"	
1, 1872	"	63	1,000	63,000		1, 1902	6	"	
July 1, 1890 } Refunded. }	"	100	1,000	\$100,000	100,000	July 1, 1910	4	"	At Suffolk Bank, Boston, Mass.
July 1, 1874	"	50	100	\$5,000	100,000	1, 1895	6	"	At treasurer's office, Manchester, N. H.
1, 1874	"	50	500	25,000		1, 1895	6	"	
1, 1874	"	70	1,000	70,000		1, 1895	6	"	
Jan. 1, 1887 } Refunded. }	"	100	1,000	\$100,000	100,000	Jan. 1, 1907	4	"	"
July 1, 1881	Bridge bonds.	15	100	\$1,500	60,000	July 1, 1911	4	"	"
1, 1881	"	39	500	19,500		1, 1911	4	"	"
1, 1881	"	39	1,000	39,000		1, 1911	4	"	"
April 1, 1885	City bonds.	50	1,000	\$50,000	50,000	Apr. 1, 1905	4	"	At Suffolk Bank, Boston, Mass.
1, 1885	"	50	1,000	50,000		1, 1907	4	"	
1, 1885	"	50	1,000	50,000		1, 1909	4	"	
1, 1885	"	5	1,000	5,000	5,000	1, 1911	4	"	"
July 1, 1893	Imp. bonds.	100	1,000	\$100,000	100,000	Jan. 1, 1913	4	"	"
June 1, 1894	"	100	1,000	\$100,000	100,000	Apr. 1, 1914	4	"	"
					\$1,265,000				

STATEMENT OF THE ANNUAL INTEREST CHARGE ON THE BONDED DEBT.

YEAR.	Six per ct. water bonds.	Four per ct. water bonds.	Four and a half and 5 per ct. water bonds.	Five per ct. cemetery bonds.	Six per ct. to fund debt.	Four per ct. to b'ld Mc-Gregor bridge.	Four per ct. to fund debt.	Four per ct. Imp. bonds.	Total of annual interest.
1890.....	\$27,000	\$6,000	.....	\$623.75	\$7,200	\$2,400	\$6,200	.....	\$49,423.75
1891.....	24,000	8,000	.....	\$13.92	7,200	2,400	6,200	.....	48,613.92
1892.....	18,000	12,000	.....	1,000.00	7,200	2,400	6,200	.....	46,800.00
1893.....	18,000	12,000	.....	1,041.66	7,200	2,400	6,200	.....	46,841.66
1894.....	18,000	14,000	\$9,500	1,550.00	.....	2,400	6,200	\$8,000	59,650.00

SUMMARY OF CITY DEBT.

Amount of bonded debt January 1, 1894 . . .	\$1,191,000.00
Amount of cemetery bonds issued in 1894 . . .	5,000.00
Amount of water bonds issued in 1894 . . .	50,000.00
Amount of improvement bonds issued in 1894 . . .	100,000.00
Accrued interest on bonded debt . . .	25,100.00
	<u>\$1,371,100.00</u>
Amount of bonds paid in 1894 . . .	50,000.00
	<u>\$1,321,100.00</u>
*Amount of security note or bond . . .	100,000.00
	<u>\$1,421,100.00</u>
Total indebtedness January 1, 1895 . . .	\$1,421,100.00

AVAILABLE ASSETS.

Net cash on hand January 1, 1895 . . .	\$76,712.90
Taxes uncollected, list of 1894 . . .	38,924.65
Stock of Suncook Valley Railroad, estimated value . . .	14,500.00
	<u>\$130,137.55</u>

BONDED DEBT.

Total net indebtedness January 1, 1895 . . .	\$1,290,962.45
Total net indebtedness January 1, 1894 . . .	1,032,018.09
	<u>\$258,944.36</u>
Increase . . .	\$258,944.36

*This loan was made by authority of resolution passed January 26, 1894.

PUBLIC BUILDINGS OCCUPIED IN PART BY PRIVATE PARTIES.
ENGINE HOUSES.

Monthly rent.	Location.	Occupants.	No. of rooms.	Heat furnished by	Gas furnished by
\$6.25	28 Vine street.....	{ Charles H. Rogers.....	5 rooms.....	*Family.....	Family.
		{ Artemas C. Barker.....	1 room.....	City.....	Family.
6.25	26 Vine street.....	{ Amoskag S. F. E. Co. No. 1.....	2 halls.....	City.....	City.
		{ Pennacook Hose Co. No. 1.....	2 halls.....	*Family.....	Family.
6.25	20 Vine street.....	{ Frank J. Dustin.....	5 rooms.....	*Family.....	Family.
		{ N. S. Bean S. F. E. Co. No. 4.....	4 rooms.....	City.....	City.
6.25	18 Vine street.....	{ Hook and Ladder Co. No. 1.....	2 rooms.....	City.....	City.
		{ Charles M. Denyon.....	7 rooms.....	*Family.....	Family.
5.00	8 Vine street.....	{ Warren F. Wheeler.....	3 rooms.....	City.....	City.
		{ Chemical Engine Co.....	1 room.....	City.....	City.
8.33	521 Maple street.....	{ Walter Seaward.....	7 rooms.....	Family.....	Family.
		{ Henry S. Reed.....	5 rooms.....	City.....	Family.
5.00	44 Webster street.....	{ Emil H. Smith.....	5 rooms.....	City.....	Family.
		{ General Stark S. F. E. Co.....	{ 2 rooms.....	{ City.....	{ City.
			{ 1 hall.....		
	Main street, W. M.....	{ Fire King S. F. E. Co. No. 2.....	7 rooms.....	City.....	City.
	Massabesic street.....	{ Merrimack S. F. E. Co. No. 3.....	5 rooms.....	City.....	City.
	Rimmon street.....	{ Engine and Ladder No. 6.....	5 rooms.....	City.....	City.

* One radiator in front room; heat furnished by city for that.

COURT HOUSE.

Annual rent.	Location.	Occupants.	No. of rooms.	Heat furnished by	Gas furnished by	Remarks.
Free.	Franklin, corner of Merrimack.	City Mission Society.	1	City Mission.	City Mission.	.....

CITY HALL BUILDING.

Annual rent.	Location.	Occupants.	Halls, offices, and stores.	Heat furnished by	Gas furnished by	Remarks.
\$360.00	904 Elm street.	John J. Holland.	Store and basement.	City.	Occupant.	Druggist.
600.00	"	Union Electric Co.	Office.	"	"	Electricity.
400.00	"	Richardson & Goggins.	Office (ins'ance)	"	"	Insurance.
700.00	"	Second National Bank.	Office	"	"	Banking.
Uncertain.	City Hall in third story	Sundry persons.	Hall (bank)	"	City.	Untenantable.

BATTERY BUILDING.

Annual rent.	Location.	Occupants.	Rooms.	Command.	Remarks.
Free.	Manchester street.	First Light Battery.	2 rooms.	First N. H. L. Battery.	Battery occupies first and second floor and basement.
"	"	Emmet Guards.	1 room.	Emmet Guards.	Guards occupy third floor. Ward meetings are held in battery room on second floor.

WARD FIVE WARDROOM.

Annual rent.	Location.	Occupants.	Rooms.	Command.	Remarks.
Free.	Lake avenue.	Sheridan Guards.	1 room.	Sheridan Guards.	Ward meetings are held in building

Valuation of Real Estate Owned by the City.

High School, Beech street, corner Lowell :

Building	\$40,000.00	
59,400 square feet of land	17,820.00	
	<hr/>	\$57,820.00

Franklin-street school, Franklin street, corner Pleasant :

Building	\$16,000.00	
19,200 square feet of land	19,200.00	
	<hr/>	\$35,200.00

Spring-street school, Spring street :

Building	\$13,000.00	
13,600 square feet of land	13,600.00	
	<hr/>	\$26,600.00

Lincoln-street school, Lincoln street, corner Merri-mack :

Building	\$45,000.00	
40,000 square feet of land	8,000.00	
	<hr/>	\$53,000.00

Ash-street school, Ash street, corner Bridge :

Building	\$50,000.00	
57,537 square feet of land	17,262.00	
	<hr/>	\$67,262.00

Main-street school, North Main street, West Manchester :

Building	\$6,000.00	
40,293.4 square feet of land	10,073.00	
	<hr/>	\$16,073.00

Webster-street school, Webster street :

Building	\$39,000.00	
55,714 $\frac{3}{4}$ square feet of land	13,928.00	
	<hr/>	\$52,928.00

Blodget-street school, Blodget street :

Building	\$1,500.00	
9,000 square feet of land	3,600.00	
	<hr/>	\$5,100.00

Schoolhouse lot, Bridge street, corner Union :

10,000 square feet of land	\$5,000.00
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Lowell-street school, Lowell street, corner Chestnut :

Building	\$1,000.00
9,000 square feet of land	9,000.00
	<hr/>
	\$10,000.00

Merrimack-street school, Merrimack street, corner Union :

Building	\$15,000.00
12,600 square feet of land	6,300.00
	<hr/>
	\$21,300.00

Wilson Hill school, Manchester street, corner Wilson :

Building	\$500.00
15,850 square feet of land	1,902.00
	<hr/>
	\$2,402.00

School-street school, School street, West Manchester :

Building	\$1,000.00
12,176 square feet of land	3,044.00
	<hr/>
	\$4,044.00

South Main-street school, South Main street, West Manchester :

Building	\$500.00
13,650 square feet of land	2,047.00
	<hr/>
	\$2,547.00

Bakersville school, Elm street, south :

Building	\$10,000.00
24,184 square feet of land	3,628.00
	<hr/>
	\$13,628.00

Stark District school, River road, north :

Building	\$1,000.00
43,560 square feet of land	100.00
	<hr/>
	\$1,100.00

Amoskeag school, Front street, Amoskeag :

Building	\$1,500.00	
6,000 square feet of land	1,000.00	
	<hr/>	\$2,500.00

Rimmon school, corner Amory and Dubuque streets:

Building	\$17,400.00	
16,600 square feet of land	2,490.00	
	<hr/>	\$19,890.00

Goffe's Falls School, Goffe's Falls :

Building	\$4,000.00	
47,916 square feet of land	250.00	
	<hr/>	\$4,250.00

Harvey District school, Nutt road :

Building	\$2,000.00	
21,780 square feet of land	100.00	
	<hr/>	\$2,100.00

Webster Mills school, Webster Mills :

Building	\$400.00	
5,445 square feet of land	100.00	
	<hr/>	\$500.00

Old Hallsville school, East Manchester :

Building	\$500.00	
30,075 square feet of land	3,008.00	
	<hr/>	\$3,508.00

Youngsville school, Youngsville :

Building	\$500.00	
51,228 square feet of land	100.00	
	<hr/>	\$600.00

Mosquito Pond school, Mosquito Pond :

Building	\$400.00	
10,890 square feet of land	100.00	
	<hr/>	\$500.00

Pearl-street school :

Building	\$18,700.00	
Land	3,200.00	
	<hr/>	\$21,900.00

Varney school, Bowman street, corner Mast, West
Manchester :

Building	\$43,750.00	
Land	6,700.00	
	<hr/>	\$50,450.00

New Hallsville school, Jewett street, corner Young,
East Manchester :

Building	\$29,800.00	
44,000 square feet of land	3,300.00	
	<hr/>	\$33,100.00
		<hr/>
		\$513,302.00

ENGINE HOUSES.

Engine house and stable, Central station, Vine
street :

Building	\$31,800.00	
21,718.86 square feet of land	25,438.00	
	<hr/>	\$57,238.00

Clinton-street engine house, Clinton street, West
Manchester :

Building	\$1,000.00	
3,790 square feet of land	1,000.00	
	<hr/>	\$2,000.00

North Main-street engine house, North Main street,
West Manchester :

Building	\$18,000.00	
11,819 square feet of land	2,955.00	
	<hr/>	\$20,955.00

Webster-street engine house, Webster street, corner
Chestnut :

Building	\$12,000.00	
8,510 square feet of land	2,180.00	
	<hr/>	\$14,180.00

Merrimack engine house, Lake avenue :

Building	\$15,000.00	
10,000 square feet of land	3,000.00	
	<hr/>	\$18,000.00

Hosehouse and cottage, Maple street, corner East High:

Building	\$3,000.00	
18,330 square feet of land	3,666.00	
	<hr/>	\$6,666.00

Engine house and ward room, ward 9, Rimmon and Amory streets, West Manchester:

Building	\$22,755.00	
6,000 square feet of land	870.00	
	<hr/>	\$23,625.00

South Manchester hosehouse:

Building	\$4,200.00	
4,278 square feet of land	684.48	
	<hr/>	\$4,884.48
		<hr/>
		\$147,548.48

OTHER PUBLIC BUILDINGS AND LOTS.

City library, Dean avenue, corner Franklin street:

Building	\$35,000.00	
15,000 square feet of land	30,000.00	
	<hr/>	\$65,000.00

City hall, Elm street, corner Market:

Building	\$10,000.00	
100,000 square feet of land	150,000.00	
	<hr/>	\$160,000.00

City farm, Mammoth road:

Building	\$5,000.00	
46.66 acres, west Mammoth road	70,000.00	
81.55 acres, east Mammoth road	65,240.00	
	<hr/>	\$140,240.00

Court house, Franklin street, corner West Merri-
mack:

Building	\$20,000.00	
19,000 square feet of land	57,000.00	
	<hr/>	\$77,000.00

Battery Building, Manchester street :

Building	\$13,000.00	
3,400 square feet of land	5,100.00	
	<hr/>	\$18,100.00

Police station, Manchester street, corner Chestnut :

Building	\$40,000.00	
7,500 square feet of land	15,000.00	
	<hr/>	\$55,000.00

Slayton lot, Manchester street :

Building	\$300.00	
2,908 square feet of land	4,700.00	
	<hr/>	\$5,000.00

City stable and other buildings, Franklin street :

Building	\$12,300.00	
44,656 square feet of land	89,312.00	
	<hr/>	\$101,612.00

City stable, district No. 10 \$1,200.00

City scales, Franklin street :

Building	\$300.00	
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Gravel lots, Goffstown :

2 acres	\$400.00	
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Gravel lot, Bakersville, South Manchester \$700.00

Gravel lot, district No. 10, bought of Brooks & Brock (city has right to remove gravel until August 25, 1903):

1 $\frac{1}{3}$ acres	\$500.00	
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Land bought of A. D. Gooden :

28,750 square feet of land	\$1,351.00	
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Ward 5 wardroom, Lake avenue :

Building	\$4,500.00	
Land	1,000.00	
	<hr/>	\$5,500.00
		<hr/>
		\$631,903.00

PERSONAL PROPERTY OWNED BY THE CITY.

Property in care city engineer	\$1,149.00
in care chief engineer fire department	105,497.50
in care street and park commission	21,838.22
in care superintendent of schools	36,755.00
in care city messenger	2,759.00
in care city marshal and janitor	1,971.00
in care superintendent of city farm	11,889.61
in care trustees city library	29,333.00
in care superintendent of Pine Grove cemetery	248.35
in care superintendent Valley cemetery	106.00
Stock in Suncook Valley Railroad, in care of city treasurer	50,000.00
Personal property in care city weigher	1,000.00
	<hr/>
	\$262,546.68
Uncollected taxes in 1893	\$4,572.60
Uncollected taxes in 1894	38,924.65
Net cash in the treasury, December 31, 1894	76,712.90
	<hr/>
	\$120,210.15

OTHER REAL AND PERSONAL ESTATE OWNED BY THE CITY.

Soldiers' monument	\$25,000.00
Permanent inclosure of commons	10,200.00
Amoskeag bridge over Merrimack river	25,000.00
Fountains and water-troughs on streets and com- mons	3,600.00
Two city tombs	10,000.00
McGregor bridge	90,000.00
Granite bridge	25,000.00
South Main-street bridge, over Piscataquog river	28,450.00
Second-street bridge, over Piscataquog river	52,036.06
Print-Works bridge, on Granite, over lower canal	5,000.00
Two bridges in highway district No. 9	2,000.00

VALUATION OF REAL ESTATE OWNED BY THE CITY. 721

One bridge at Goffe's Falls	\$1,000.00
Expended on construction of sewers	438,586.15
	<hr/>
	\$715,872.21

PARKS AND CEMETERIES.

Valley cemetery, 19.7 acres	\$200,000.00
Pine Grove cemetery, about 96 acres	46,700.00
Amoskeag cemetery, 1.23 acres	4,340.00
Stark park, 28 acres	9,000.00
Derryfield park, 76 acres	25,000.00
Concord common, 4.48 acres	200,000.00
Tremont common, 2.25	40,000.00
Hanover common, 3 acres	100,000.00
Park common, 3.49 acres	60,000.00
Merrimack common, 5.89 acres	200,000.00
	<hr/>
	\$885,040.00

WATER-WORKS.

Real estate and personal property of water-works, at cost price	\$1,300,264.14
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RECAPITULATION.

Real estate owned by the city, schoolhouses . .	\$513,302.00
Real estate owned by the city	631,903.00
Real estate owned by the city, engine houses . .	147,548.48
Water-works at cost price	1,300,264.14
Personal property owned by the city	262,546.68
Uncollected taxes and cash	120,210.15
Other real and personal property	715,872.21
Parks and cemeteries	885,040.00
	<hr/>
	\$4,576,686.66

PROPERTY ACCOUNT.

Inventory of assets, December 31, 1894	\$4,576,686.66
Inventory of assets, December 31, 1893	4,334,551.41
	<hr/>
Gain in valuation	\$242,135.25

The increase in valuation as above stated results from the amount expended in 1894 on :

Sewers and drains	\$53,000 00
Rimmon schoolhouse	18,450.00
South Main-street bridge	17,400.00
Land purchased for cemeteries	4,400.00
Pearl-street schoolhouse	18,700.00
Engine-house and wardroom, ward 9	1,000.00
South Manchester hosehouse	4,200.00
Water-works, construction	158,606.61
Webster-street schoolhouse	6,500.00
City stable, district No. 10	200.00
Ward 5 wardroom	4,500.00
Personal property, fire department	1,600.00
Street and park commission	4,233.22

\$292,789.83

Deduct decrease of uncollected taxes and net cash

in the treasury 50,654.58

Total net gain \$242,135.25

Details of inventory are on file in the auditor's office. The water-works would sell readily for \$2,000,000, and are growing yearly more valuable to the city. The large increase in the re-valuation of the public buildings and lands owned by the city is fully warranted by the opening and improvement of Derryfield park in the vicinity of the city farm lands, the high pressure service now introduced under the management of the water-works, the facilities for travel furnished by the street railway, and the rapid increase in our population and industries.

Auditor's Office.

City hall building. Open from 8 to 12 A. M., 2 to 5 P. M.; 7 to 9 P. M. on Thursday.

In every bill presented to the city auditor for his approval, the following points will be considered and passed upon :

1. Is the subject matter of the bill under examination within

the scope of the powers conferred by the legislature on the city government ?

2. Is the bill certified by the party legally authorized to make the contract, or cause the expenditure to be made ?

3. Has any appropriation been made to meet the expenditure, and is there a balance unexpended sufficient to pay this bill ?

4. Are the number of articles in the bill, or the measurements either of dimensions, quantities, or weights correctly and fully stated, and is the proof of the delivery to the city of the whole amount charged sufficient ?

5. Is the price charged a fair market price, or is it so largely in excess as to require the attention of the city councils to be called to the same ?

6. Is the bill written in a fair, legible hand, correctly cast, and on paper of sufficient length and width to admit of its proper backing and filing ?

7. If the bill is in part payment of a contract, the date and the total amount of the contract, the amount already paid, the amount of the work not yet completed, and the per cent retained, if any, should be stated on the bill.

8. Any other inquiries in matters of law and fact which affect the question of indebtedness before the auditor.

9. Approval, rejection, or suspension for further information or correction as the circumstances of each case may require.

COURT DECISIONS, LEGAL POINTS AND RULES, RELATING TO THE
APPROVAL OR DISAPPROVAL OF CLAIMS AGAINST THE CITY.

No bill or account shall be paid by the city treasurer until the auditor has approved it as correct.

Public trusts or powers devolved by law or charter on the city councils cannot be delegated to others. *Dillon's Municipal Corporations*, section 96, volume 1.

No member of either branch [of the city councils], except the mayor, shall receive any compensation for his services, or shall hold any office or agency created during his continuance in office. *General Laws*, chapter 46, section 13.

The executive powers of the city, except where vested in the mayor, shall be exercised by the mayor and aldermen. *General Laws*, chapter 46, section 14.

The mayor and aldermen have all the powers and authority of selectmen of towns unless it is otherwise provided by law. *General Laws*, chapter 46, section 14.

Joint standing committees have advisory powers only; they cannot legally be endowed with executive or legislative powers by ordinance or resolution of the city councils, as no by-law or ordinance shall be repugnant to the constitution or laws of the state.

No member of either branch of the city councils can enter into any verbal or written contract to furnish supplies to, or do any work for the city. Any firm of which a member is also a member of the city councils is included in this prohibition.

No city official, or department, or board of officials having legal power to expend money for the benefit of the city, can purchase of or contract with themselves, with any one of the board, or with any firm of which one of said officials is a member. *Dillon's Municipal Corporations*, volume 1, page 436, section 444.

Every bill against the city shall specify the particular appropriation to which the same should be charged, and the moneys paid will be charged to such appropriations only.

He who is intrusted with the business of others cannot be allowed to make such business a source of profit to himself.

All orders passed by the city councils authorizing a ministerial act to be performed by its agent or agents must be strictly construed, and the act to be done must be specifically stated.

The board of engineers have the authority of firewards. (*General Laws*, chapter 106, section 11.) They have no power conferred upon them by law or ordinance to purchase new apparatus of any kind.

The joint standing committee on fire department have advisory powers only.

The laws and ordinances require the city auditor to withhold his signature from all bills against any appropriation where the

amount of the appropriation is expended, until the city council shall have provided the means of paying the same. Section 4, chapter 3 of the City Ordinances, and section 4, ordinances relating to duties of the city auditor, approved January 7, 1890.

The power of towns to raise and appropriate money is derived solely from statutory provisions, which restrict the power to certain specified objects and other necessary charges.

Votes to raise or pay money for purposes other than those prescribed by statute are void, and towns cannot be compelled, and generally will not be permitted, to carry such votes into effect.

It is not left to the unrestricted and irresponsible discretion of towns to vote gifts or to select donees; their charity is a duty defined, commanded, enforced, and regulated, and the objects of it are designated by law.

A majority cannot dispose of the property of a minority in an unlimited manner. *Gove v. Epping*, 41 N. H. 539.

The following parties are authorized by law or ordinance to make expenditures, within the scope of their powers, for their respective departments: For fire department and fire-alarm telegraph, the chief engineer, to be submitted monthly to the approval of the board of engineers; for police department, mayor and police commission; for police court, police judge; for water-works department, superintendent, subject to the rules of the board of commissioners and the ordinances relating thereto; for city farm, superintendent; for overseers of the poor, each overseer, subject to the rules of the board of overseers, and their monthly review and approval; for schools, superintendent, or such person as the board of school committee may designate, bills to be approved by the board monthly; for streets, sewers, and other work under these departments, street and park commissioners; for city clerk's office, treasurer's office, tax collector's office, assessors' office, auditor's office, incidental expenditures, city physician, city messenger, city solicitor, city engineer,—mayor; for cemeteries, superintendents, subject to board of trustees (to consist of citizens not members of the city councils); for health department, board of health, subject to approval of

mayor; city library, board of trustees or person designated by them. It may be stated as a general rule, that all subordinate officials are under the supervision and control of the mayor, subject to such limitations and restrictions as the board of aldermen, acting as a board, may require.

REPORT
OF THE
TREASURER OF SINKING FUND.

REPORT

OF THE

TREASURER OF SINKING FUND.

To the Trustees of the Sinking Fund:

GENTLEMEN,—I herewith transmit to you the second annual report of the receipts of this board for the year ending December 31, 1894:

Total amount of fund January 1, 1894, for the pay-	
ment of improvement bonds	\$5,000.00
Income received during the year	202.00

Total amount of fund December 31, 1894 . \$5,202.00

Total amount of fund January 1, 1894, for the pay-	
ment of water bonds	\$12,750.00
Income received during the year	395.15

Total amount of fund December 31, 1894 . \$13,145.15

Most respectfully submitted.

SYLVANUS B. PUTNAM,
Treasurer of the Trustees of Sinking Fund.

This is to certify that I have examined the books of accounts of Sylvanus B. Putnam, treasurer of the trustees of the sinking fund, embracing the receipts for the year ending December 31, 1894, and find the same correct and properly vouched.

I have also examined the securities in which said fund is invested and find as follows :

FOR THE PAYMENT OF IMPROVEMENT BONDS.

Bonds of the city of Manchester, N. H., 4 per cent,	
1913	\$5,000.00
Cash on hand	202.00
<hr/>	
Total amount of fund December 31, 1894 .	\$5,202.00

FOR THE PAYMENT OF WATER BONDS.

Bonds of the city of Manchester, N. H., 4 per cent,	
1913	\$8,000.00
Cash on hand	5,145.15
<hr/>	
Total amount of fund December 31, 1894 .	\$13,145.15
Total amount of improvement fund	\$5,202.00
Total amount of water-works fund	13,145.15
<hr/>	
Total amount of sinking fund Dec. 31, 1894	\$18,347.15

JAMES E. DODGE,

City Auditor.

RESOLUTIONS, ORDERS, ORDI-
NANCES.

RESOLUTIONS, ORDERS, ORDINANCES

PASSED IN 1894.

CITY OF MANCHESTER.

RESOLUTION providing for the issue of One Hundred Thousand Dollars in Bonds.

Resolved, by the Mayor, Aldermen, and Common Council of the City of Manchester, in City Council assembled, as follows :

That for the purpose of paying certain indebtedness of the city now outstanding, and providing for a secured depository of the moneys and funds of the city, the bonds of the city be issued to the amount of one hundred thousand dollars (\$100,000) payable in two years from the date of issue ; that said bonds be offered to the national banks located in Manchester for purchase, and sold to that one of said banks which shall offer to purchase the same at the lowest rate of interest ; and to bear the rate of interest so bid, and to be in denominations satisfactory to said purchasing bank. Said bonds to be non-negotiable, payable only to the purchasing bank and to be sold on the condition that, upon their issue, they shall forthwith be by said purchasing bank deposited with the city treasurer to secure all deposits which shall be made in said bank by the city treasurer or collector of taxes of the moneys or funds of the city ; and in case of any loss of any of said moneys or funds by any act, neglect, or failure of said bank, said bonds to be offset against said loss.

Resolved, further, that all moneys or funds collected and held

either by the city treasurer or collector of taxes after the sale of said bonds and their deposit with the city treasurer, shall be deposited in said purchasing bank ; and said treasurer and collector of taxes are hereby instructed after such issue and deposit of said bonds, to make a deposit of the moneys and funds of the city in no other bank except said purchasing bank, and in case of loss of any of said funds or moneys by the failure or other inability of said purchasing bank to pay on demand said funds and moneys, said treasurer and collector of taxes shall be relieved from all responsibility for the moneys and funds so deposited in said purchasing bank, and that, as a further consideration for the purchase of said bonds, no interest shall be charged upon any of the deposits so made in the purchasing bank.

Resolved further, that said bonds be signed by the mayor and countersigned by the city treasurer, that the mayor and joint standing committee on finance are hereby authorized to call for bids for the purchase of said bonds from the national banks located in Manchester, to issue said bonds, and to make all necessary contracts with the purchasing bank regarding the deposits and the lodging of the bonds as collateral security therefor, for two years from the date of issue of said bonds.

Resolved further, that the money received from the sale of said bonds be applied to the payment of fifty thousand dollars (\$50,000) of the funded debt, due July 1, 1894 ; of twenty-five thousand dollars (\$25,000) of temporary loan due December 1, 1894 ; and of twenty-five thousand dollars (\$25,000) of the funded debt due July 1, 1895, and for no other purpose.

Resolved further, that this resolution shall take effect upon its passage.

Passed January 26, 1894.

CITY OF MANCHESTER.

RESOLUTIONS on the death of City Auditor James B. Straw.

The committee appointed to prepare resolutions on the death of City Auditor James B. Straw submit the following :

Resolved, That by the death of Mr. Straw the city loses one of its most efficient officers, one peculiarly fitted for the duties of the office which he held.

The strength and moral wealth of the community is maintained largely by its office holders who, without seeking publicity, do their duty, uphold the highest standard of character, and give courage and support to those about them. Such a man was James B. Straw. Possessing by nature a strong and well-balanced mind, he had by thought and reading made himself familiar with the underlying principles of state and municipal affairs, so that when he was appointed to the responsible office of city auditor he brought to the discharge of its duty unusual qualifications.

As a public officer he consulted neither his fears nor his self-interest ; his high sense of justice and right compelled the respect of every one and made his office impregnable to fraud. He devoted himself unreservedly to the interests of the city and, like his distinguished brother whose far-reaching sagacity laid the foundation of the remarkable prosperity which this city has enjoyed, he has left behind him an honorable and upright career which attests his ability and worth as a citizen and a man.

Resolved, That a copy of these resolutions be placed upon our records, and another sent to the family of the deceased, to whom we respectfully tender our sympathy.

A. D. MAXWELL,
JAMES LIGHTBODY,
B. B. ALDRICH,
JOHN J. TWOMEY,
GEORGE B. ROGERS.

CITY OF MANCHESTER.

RESOLUTION relating to the Manchester Street Railway.

Resolved by the Board of Mayor and Aldermen of the City of Manchester :

That the Manchester Street Railway be and hereby is authorized to use in furnishing electrical motive power upon its road, as now laid out, the system known as the single trolley system, if its directors deem the same expedient or necessary in order to equip the road as an electric road ; *provided*, that if the railway complete the electric system by June 1, 1895, the request of the Manchester Horse Railway be granted.

Passed May 1, 1894.

CITY OF MANCHESTER.

RESOLUTION to make a temporary loan of One Hundred Thousand Dollars.

Resolved by the Mayor, Aldermen, and Common Council of the City of Manchester, in City Council assembled, as follows :

That for the purpose of paying such claims against the city as may fall due before the tenth day of December, 1894, the mayor be and hereby is authorized to make a temporary loan, for the use of the city, of a sum not exceeding one hundred thousand dollars (\$100,000), being in anticipation of the taxes of the present year, giving for the same the notes of the city signed by the mayor and countersigned by the city treasurer.

Passed May 18, 1894.

CITY OF MANCHESTER.

RESOLUTION exempting from taxation the Eaton Heights Shoe Company.

Resolved by the Mayor, Aldermen, and Common Council of the City of Manchester, in City Council assembled, as follows :

That the corporation known as the Eaton Heights Shoe Com-

pany, a corporation duly established under the laws of the state of New Hampshire, who propose to erect a brick building and put in operation in said city of Manchester an establishment for the manufacture of boots and shoes and represent that the capital used in operating the same, including plant, is twenty thousand dollars (\$20,000), be it hereby

Resolved, That said company be exempt from taxation for a term of ten years ; *provided*, a brick building is built for said purpose.

Passed June 5, 1894.

CITY OF MANCHESTER.

RESOLUTION making a temporary loan of One Hundred Thousand Dollars.

Resolved by the Mayor, Aldermen, and Common Council of the City of Manchester, in City Council assembled, as follows :

That for the purpose of paying such claims against the city as may fall due before the fifteenth day of December, 1894, the mayor be and hereby is authorized to make a temporary loan for the use of the city of a sum not exceeding one hundred thousand dollars (\$100,000) being in anticipation of the taxes of the present year, giving for the same the notes of the city signed by the mayor and countersigned by the city treasurer.

Passed August 7, 1894.

CITY OF MANCHESTER.

RESOLUTION providing for the borrowing of Fifty Thousand Dollars for Water-Works purposes.

Resolved, by the Mayor, Aldermen, and Common Council of the City of Manchester, in City Council assembled, as follows :

That for the purpose of constructing a high service system of

water-works, and of maintaining and extending the present system of water-works in this city in accordance with the authority granted in the act passed by the legislature of New Hampshire at the January session, 1893, entitled: "An act in amendment of the act passed June session, 1871, entitled: 'An act to enable the city of Manchester to establish water-works,' and in amendment of all acts passed subsequently thereto relating to said water-works," and approved February 28, 1893, the mayor and the joint standing committee on finance are hereby authorized to borrow the sum of fifty thousand dollars (\$50,000) in the name and behalf of the city of Manchester, and to issue therefor the bonds of the city payable in twenty (20) years from the date of their issue, signed by the city treasurer and countersigned by the mayor, with coupons annexed for the payment of the interest annually at four (4) per cent, and in denominations of one thousand dollars (\$1,000) each; said money to be borrowed and said bonds to be issued as the progress of the work aforesaid shall require, and upon the written demand for said money by the board of water commissioners. And the mayor and the joint committee on finance are authorized hereby to do all things necessary and proper to borrow said sum of fifty thousand dollars (\$50,000) and issue said bonds.

And this resolution shall take effect upon its passage.

Passed September 4, 1894.

CITY OF MANCHESTER.

RESOLUTION in relation to the issue of Water Loan Bonds, providing for the payment of the interest semi-annually.

Resolved, by the Mayor, Aldermen, and Common Council of the City of Manchester, in City Council assembled, as follows:

That the interest upon the issue of fifty thousand dollars (\$50,000) of bonds authorized by vote of the city councils September 4, 1894, be and the same is hereby made payable semi-annually

on the first day of April and October of each year ; and that so much of the resolution passed September 4, 1894, as is inconsistent herewith be and the same is hereby repealed.

Resolved, further, that the action of the mayor and the joint standing committee on finance in calling for proposals and preparing bonds with interest payable semi-annually as aforesaid, be and the same is hereby ratified, confirmed, and approved.

Passed October 2, 1894.

CITY OF MANCHESTER.

RESOLUTION discontinuing a portion of Ainsworth Avenue.

Resolved, by the Mayor, Aldermen, and Common Council of the City of Manchester, in City Council assembled, as follows :

That five feet on the west side of Ainsworth avenue as laid out by the board of mayor and aldermen, be and the same is hereby discontinued, so that said Ainsworth avenue shall be twenty-five feet in width.

Passed October 2, 1894.

CITY OF MANCHESTER.

RESOLUTION relating to Exemption from Taxation the South Manchester Building Association.

Resolved, by the Mayor, Aldermen, and Common Council of the City of Manchester, in City Council assembled, as follows :

That, whereas the South Manchester Building Association, for the purpose of establishing a new industry in the city of Manchester, propose to erect a brick factory, and equip the same, in which to carry on the business of manufacturing shoes and other articles, on a tract of land containing about 75,000 feet situate southwest corner of Lincoln and Silver streets in Manchester, N. H., marked "F" on plan made by J. B. Sawyer ; therefore

Resolved, That said land, the brick building erected thereon, the equipment of the same, and the capital stock and other property of said company, be exempt from taxation for a term of ten years from the first day of January, 1895, A. D., providing the amount invested in said plant shall not be less than \$30,000.

Passed November 9, 1894.

CITY OF MANCHESTER.

RESOLUTION relating to Exemption from Taxation the Eureka Shoe Company.

Resolved, by the Mayor, Aldermen, and Common Council of the City of Manchester, in City Council assembled, as follows :

WHEREAS, the Eureka Shoe Company, a corporation established by law, with a capital stock of \$50,000, desires to locate their business, and carry on the manufacture and sale of their own product of shoes and other articles in the city of Manchester, providing sufficient inducements are given said company by said city of Manchester ; therefore

Resolved, That the capital of the Eureka Shoe Company aforesaid, its machinery, materials, raw and in process of manufacture, and other property necessary in conducting its business, shall be exempt from all taxation for a period of ten years from the first day of January, 1895, A. D.

Passed November 9, 1894.

CITY OF MANCHESTER.

RESOLUTION for a Joint Special Committee.

Resolved, by the Mayor, Aldermen, and Common Council of the City of Manchester, in City Council assembled, as follows :

That a joint committee of three, consisting of one alderman and two members of the common council, be appointed to con-

fer with the agent of the Amoskeag Manufacturing Co., to ascertain at what terms the city could procure the land bordering on Christian brook, so called, between Union and Elm streets, for the use of said city as a public park.

Passed July 3, 1894.

CITY OF MANCHESTER.

RESOLUTION exempting from Taxation the Redman & Eaton Shoe Company.

Resolved, by the Mayor, Aldermen, and Common Council of the City of Manchester, in City Council assembled, as follows :

That whereas the Redman & Eaton Shoe Company, a corporation duly established under the laws of the state of New Hampshire, proposes to erect a brick building and put in operation in said city of Manchester an establishment for the purpose of manufacturing, buying, selling, disposing of, and dealing in boots, shoes, rubbers, and leather, and represents that the capital to be used in operating the same, including plant, is thirty-five thousand dollars ; therefore,

Resolved, that said establishment, and the capital to be used in operating the same, be and the same are hereby exempt from taxation for a term of ten years, *provided* a brick building is built for said purpose.

Passed December 4, 1894.

CITY OF MANCHESTER.

AN ORDER to print the Forty-eighth Annual Report of the Receipts and Expenditures of the City of Manchester.

Ordered, If the Board of Mayor and Aldermen concur : That the joint standing committee on finance be and they hereby are authorized to procure for the use of the inhabitants of said city

the printing of the Forty-eighth Annual Report of the Receipts and Expenditures of the City of Manchester, including the reports of the joint standing committee on finance, the city auditor, the school board and superintendent of schools, superintendent of water-works, water commissioners, engineer of fire department, city marshal, overseers of the poor, trustees, librarian, and treasurer of the city library, committee on cemeteries, joint standing committee on city farm, city physician, city solicitor, city engineer, street and park commissioners, and such other matters relating to city affairs as said finance committee may direct, the expense thereof to be charged to the appropriation for printing and stationery.

Passed January 26, 1894.

CITY OF MANCHESTER.

AN ORDER fixing the Pay of Street and Park Commissioners for Team Hire.

Ordered, If the Board of Mayor and Aldermen concur : That the street and park commissioners be allowed the sum of one hundred and fifty dollars (\$150) each, and no more, per annum, for team hire for themselves in the performance of their duty.

Passed February 6, 1894.

CITY OF MANCHESTER.

AN ORDER authorizing an Appropriation of Two Thousand Dollars (\$2,000) for Improved Wardroom and Police Station Facilities in West Manchester.

Ordered, If the Board of Mayor and Aldermen concur : That the joint standing committee on finance be authorized to report an appropriation of two thousand dollars (\$2,000) for repairs upon the Clinton-street engine house, so called, in order that the same may be improved as a wardroom and sub police-station.

Passed February 6, 1894.

CITY OF MANCHESTER.

AN ORDER to purchase a Desk for use of Police Commissioners.

Ordered, If the Board of Mayor and Aldermen concur : That the joint standing committee on lands and buildings be authorized to purchase a desk for the use of the police commissioners, the expense thereof to be charged to the appropriation for police department.

Passed February 6, 1894.

CITY OF MANCHESTER

AN ORDER relative to the South Manchester Hosehouse.

Ordered, If the Board of Mayor and Aldermen concur : That the mayor and joint standing committee on lands and buildings be authorized to receive proposals for building the South Manchester hosehouse, the expense thereof to be charged to the appropriation for that building.

March 6, 1894, passed.

CITY OF MANCHESTER.

AN ORDER relative to Clinton-street Wardroom.

Ordered, If the Board of Mayor and Aldermen concur : That the joint standing committee on lands and buildings be and are hereby authorized and requested to procure estimates of the expense necessary to fit up the Clinton-street wardroom building so that the same shall be suitable for wardroom and police station purposes, and report the result of their inquiries to the city councils.

Passed March 6, 1894.

CITY OF MANCHESTER.

AN ORDER to make Purchases for the City Farm.

Ordered, If the Board of Mayor and Aldermen concur : That the mayor and joint standing committee on city farm be and hereby are authorized to purchase a cooking range and boiler, and a carpet, the latter to be placed in the sitting-room, for use at the city farm ; the expense thereof to be charged to the appropriation for city farm.

Passed March 6, 1894.

CITY OF MANCHESTER.

AN ORDER relative to the McGregorville Schoolhouse.

Ordered, If the Board of Mayor and Aldermen concur : That the mayor and joint standing committee on lands and buildings be authorized to receive proposals for building the McGregorville schoolhouse, the expense thereof to be charged to the appropriation for that building.

Passed March 6, 1894.

CITY OF MANCHESTER.

AN ORDER relative to Ward 5 Wardroom.

Ordered, If the Board of Mayor and Aldermen concur : That the mayor and joint standing committee on lands and buildings be authorized to receive proposals for the building of ward 5 wardroom, the expense thereof to be charged to the appropriation for that building.

Passed March 6, 1894.

CITY OF MANCHESTER.

AN ORDER relative to Ward 2 Wardroom.

Ordered, If the Board of Mayor and Aldermen concur : That the joint standing committee on lands and buildings be and hereby are authorized to purchase a suitable lot of land for a wardroom for said ward 2, and procure plans and proposals for the building of a wardroom. The total expenses of land and building not to exceed the sum of three thousand dollars, the expense thereof to be charged to the appropriation for incidental expenses.

Passed March 6, 1894.

CITY OF MANCHESTER.

AN ORDER making a transfer of Money.

Ordered, If the Board of Mayor and Aldermen concur : That the city clerk be and hereby is authorized to transfer from the reserved fund the sum of four hundred and forty-five dollars (\$445), and converting the same into a special account, from which the cost of finishing additional rooms at the Excelsior hook-and-ladder truck company's headquarters shall be paid.

Passed March 6, 1894.

CITY OF MANCHESTER.

AN ORDER transferring one thousand three hundred thirty-five dollars and two cents (\$1,335.02) from the appropriation for Repairs of Highways to the appropriation for Snow and Ice.

Ordered, If the board of Mayor and Aldermen concur : That the city clerk be authorized to transfer the sum of thirteen hundred thirty-five dollars and two cents (\$1,335.02) from the appropriation for repairs of highways to the appropriation for snow and ice.

Passed April 3, 1894.

CITY OF MANCHESTER.

AN ORDER relative to changes in City Hall Building.

Ordered, If the Board of Mayor and Aldermen concur : That inasmuch as the premises heretofore occupied by the New Hampshire Trust Company in the city hall building have been vacated, the mayor and joint standing committee on lands and buildings be and hereby are authorized to fit up the same for the use of the city clerk, and the quarters at present occupied by that official be converted into a private office for the mayor ; the expense necessitated by these changes to be charged to the appropriation for city hall.

Passed April 3, 1894.

CITY OF MANCHESTER.

AN ORDER relative to Matron at Police Station.

Ordered, If the Board of Mayor and Aldermen concur : That the mayor and chief of police be authorized to employ some suitable woman to perform the duties of matron at police station, the expense thereof to be charged to the appropriation for police department.

Passed April 19, 1894.

CITY OF MANCHESTER.

AN ORDER relative to Supply Wagons for the Fire Department.

Ordered, If the Board of Mayor and Aldermen concur : That the mayor and joint standing committee on fire department be and hereby are authorized to receive proposals for purchasing two supply wagons for the use of the fire department, and report the same to the city councils.

Passed April 19, 1894.

CITY OF MANCHESTER.

AN ORDER making a transfer of Money.

Ordered, If the Board of Mayor and Aldermen concur : That the city clerk be and hereby is authorized to make a transfer of seven thousand nine hundred and seventy-five dollars (\$7,975) from the reserved fund to the appropriation for South Main-street bridge.

Passed April 19, 1894.

CITY OF MANCHESTER.

AN ORDER to purchase Horses for the Fire Department.

Ordered, If the Board of Mayor and Aldermen concur : That the mayor and joint standing committee on fire department be and hereby are authorized to purchase a pair of horses for use on the Walter M. Fulton company apparatus, the expense thereof to be charged to the appropriation for the fire department.

Passed May 1, 1894.

CITY OF MANCHESTER.

AN ORDER to purchase land for the Pine Grove Cemetery.

Ordered, If the Board of Mayor and Aldermen concur : That the mayor and committee on Pine Grove cemetery be and hereby are authorized to purchase the Howlett property, containing ten acres, more or less, and buildings situated thereon, the purchase price being four thousand four hundred dollars. One thousand dollars of this amount to be paid on delivery of deed, the balance in April, 1895, the expense to be charged to the appropriation for Pine Grove cemetery.

Passed May 1, 1894.

CITY OF MANCHESTER.

AN ORDER to purchase Supply Wagons.

Ordered, If the Board of Mayor and Aldermen concur : That the mayor and joint standing committee on fire department be authorized to purchase two supply wagons of the Kimball Carriage Co., and the expense of five hundred and sixty dollars be charged to the appropriation for fire department.

Passed May 10, 1894.

CITY OF MANCHESTER.

AN ORDER to Appropriate Money for Open-air Band Concerts.

Ordered, If the Board of Common Council concur : That the board of mayor and aldermen be and are hereby authorized, acting under the statutes passed by the New Hampshire legislature at the January session, 1893, to expend the sum of three hundred dollars for open-air band concerts; the expense thereof to be charged to the appropriation for incidental expenses.

Passed May 10, 1894.

CITY OF MANCHESTER.

AN ORDER making a Transfer of Money.

Ordered, If the Board of Mayor and Aldermen concur : That the city clerk be and hereby is authorized to make a transfer of ten thousand dollars (\$10,000) from the reserved fund to the appropriation for incidental expenses.

Passed May 18, 1894.

CITY OF MANCHESTER.

AN ORDER in relation to the Premium received for the Improvement Bonds, Series B.

Ordered, If the Board of Mayor and Aldermen concur : That the premium received for the improvement bonds be applied and

appropriated as follows : The sum of twenty-eight hundred dollars (\$2,800) be applied to the appropriation for the Pearl-street schoolhouse, and the balance to the reserved fund ; and that the city clerk be and hereby is authorized to make the entries as above directed.

Passed June 5, 1894.

CITY OF MANCHESTER.

AN ORDER to put Curbing around Lincoln-street Schoolhouse.

Ordered, If the Board of Mayor and Aldermen concur : That the joint standing committee on lands and buildings be authorized to curb the grounds at Lincoln-street schoolhouse, the expense thereof to be charged to the appropriation for curbing Lincoln-street schoolhouse, and that the joint standing committee on lands and buildings cease work as soon as the appropriation is expended.

Passed July 3, 1894.

CITY OF MANCHESTER.

AN ORDER making a transfer of Money.

Ordered, If the Board of Mayor and Aldermen concur : That the sum of two and seventy-one one hundredths dollars (\$2.71) be transferred from reserved fund to the appropriation for engine house and wardroom in ward 9 ; that the sum of three hundred twenty and thirty-three one hundredths dollars (\$320.33) be transferred from appropriation for Hallsville schoolhouse to the appropriation for repairs of buildings ; that the sum of eighteen hundred thirty-three and four one hundredths dollars (\$1,833.04) be transferred from reserved fund to the appropriation for land taken for highways ; and that the city clerk be and hereby is authorized to make the entries as above directed.

Passed July 3, 1894.

CITY OF MANCHESTER.

AN ORDER making a transfer of Money.

Ordered, If the Board of Mayor and Aldermen concur: That the city clerk be and hereby is authorized to make a transfer of nine hundred and ninety-seven and twenty-nine one hundredths dollars (\$997.29) from reserved fund to the appropriation for addition to Webster-street schoolhouse.

Passed July 3, 1894.

CITY OF MANCHESTER.

AN ORDER to erect certain Lamp-posts.

Ordered, If the Board of Mayor and Aldermen concur: That an electric light be erected at the corner of Hanover and Belmont, Elm back and Mechanic, Wilson and Prescott, Silver and Lincoln, Somerville and Jewett, Laurel and Laurel avenue, Wilson road and Lowell, Chestnut and Auburn; Prout's avenue, oil lamp; Jewett and Cilley, oil lamp.

Passed July 3, 1894.

CITY OF MANCHESTER.

AN ORDER in relation to the appropriation for Decoration of Soldiers' Graves.

Ordered, If the Board of Mayor and Aldermen concur: That the bill of The Head & Dowst Co., amounting to \$53.05 for erecting a stand on Merrimack common, be paid out of the appropriation for decoration of soldiers' graves, and that the balance of the appropriation, amounting to \$296.95 be paid Louis Bell Post No. 3, G. A. R., to go towards defraying their expenses on that day.

Passed July 3, 1894.

CITY OF MANCHESTER.

AN ORDER for the erecting of Electric Lights.

Ordered, If the Board of Mayor and Aldermen concur : That an electric light be erected at the corner of Harrison and Maple, Union and North, on Elm between Appleton and Clarke, Munroe street and River road, Front street and Dunbarton road, Marion street and McGregor, Amory street and Bartlett, South Main and Harvell, Hancock and Dartmouth ; George street, an oil lamp.

Passed August 7, 1894.

CITY OF MANCHESTER.

ON ORDER relative to House Pay of Members of the Police Force.

Ordered, If the Board of Mayor and Aldermen concur : That the house pay of members of the police force be paid regularly each month, the expense thereof to be charged to the appropriation for police department.

Passed August 7, 1894.

CITY OF MANCHESTER.

AN ORDER to erect Watering-trough.

Ordered, If the Board of Common Council concur : That the board of street and park commissioners be and hereby are authorized to erect a watering-trough at the corner of Valley and Union streets, the expense to be charged to incidentals.

Passed September 4, 1894.

CITY OF MANCHESTER.

AN ORDER making a Transfer of Money.

Ordered, If the Board of Mayor and Aldermen concur : That the appropriation for curbing around the Lincoln-street school be transferred to fund for incidental expenses.

Passed September 4, 1894.

CITY OF MANCHESTER.

AN ORDER making a Transfer of Money.

Ordered, If the Board of Mayor and Aldermen concur : That the city clerk be and hereby is authorized to make a transfer of five hundred dollars (\$500) from the appropriation for repairs of schoolhouses to the appropriation for contingent expenses.

Passed September 4, 1894.

CITY OF MANCHESTER.

AN ORDER relating to Pay of the Militia.

Ordered, If the Board of Mayor and Aldermen concur : That the sum of \$100 be paid to the Sheridan Guards, Upton Light Infantry, Scammon Rifles, Lafayette Guards, Manchester Cadets, Manchester War Veterans, Amoskeag Veterans, First Regiment Band ; and fifty dollars (\$50) to the Brigade Headquarters and Regimental Headquarters.

Passed September 4, 1894.

CITY OF MANCHESTER.

AN ORDER to purchase a Pair of Horses.

Ordered, If the Board of Common Council concur : That the horses now on trial at Vine-street station be purchased ; price not to exceed \$400 for the pair.

Passed September 4, 1894.

CITY OF MANCHESTER.

AN ORDER to pay Police for House Pay.

Ordered, If the Board of Common Council concur : That the patrolmen be paid for house duty from January 1, 1894.

Passed September 4, 1894.

CITY OF MANCHESTER.

AN ORDER for the Erection of Electric Lights.

Ordered, If the Board of Common Council concur : That an electric light be erected at the corner of North and Bay, Orange and Linden, High and Buzzell, Kelley and Rimmon, Kelley and Coolidge avenue, South Main and West Hancock, Mast road and Forest, Nutt road and Auger avenue (proposed), Union and Grove, Young road and Taylor, and Boynton.

Passed October 2, 1894.

CITY OF MANCHESTER.

AN ORDER to meet Expense for Proposed New Schoolhouse.

Ordered, If the Board of Common Council concur : That the sum of six hundred and eighty-two dollars and forty-three one hundredths (\$682.43) be paid for expensè in proposed new school, the same to be paid from appropriation for incidental expenses to the following : The John B. Clarke Publishing Co., Union Publishing Co., T. & R. D. McFarland for one set of plans, American Express Co., A. J. Lane, securing option of land ; *providing*, that the payment to C. T. & R. D. McFarland for one set of plans be in full payment for all services for work, advice, and plans against the city to October 1, 1894.

Passed October 2, 1894.

CITY OF MANCHESTER.

AN ORDER to erect Certain Electric Lights.

Ordered, If the Board of Mayor and Aldermen concur: That the joint standing committee on lighting streets cause to be erected electric lights as follows:

Corner of Spruce street and Barry avenue, corner of Hall street and Summer street, corner of Lincoln and Cedar streets, corner of Massabesic street and Hall road, the expense thereof to be charged to the appropriation for lighting streets.

Passed November 9, 1894.

CITY OF MANCHESTER.

AN ORDER to furnish Two Additional Rooms at the Pearl-street School.

Ordered, If the Board of Mayor and Aldermen concur: That the mayor and joint standing committee on lands and buildings be authorized to furnish two additional rooms at the Pearl-street school, the expense thereof to be charged to the appropriation for Pearl-street school.

Passed November 9, 1894.

CITY OF MANCHESTER.

AN ORDER to purchase 500 feet of Hose for use at the City Farm.

Ordered, If the Board of Mayor and Aldermen concur: That the mayor and joint standing committee on city farm be authorized to purchase 500 feet of hose for use at the city farm, expenses to be charged to the appropriation for city farm.

Passed November 9, 1894.

CITY OF MANCHESTER.

AN ORDER to furnish Two Additional Rooms at Rimmon School.

Ordered, If the Board of Mayor and Aldermen concur : That the mayor and joint standing committee on lands and buildings be authorized to furnish two additional rooms at Rimmon school, the expense thereof to be charged to the appropriation for Rimmon school.

Passed November 9, 1894.

CITY OF MANCHESTER.

AN ORDER making a transfer of Money.

Ordered, If the board of Mayor and Aldermen concur : That the city clerk be and is hereby authorized to make the following transfers :

From appropriation for repairs of highways to appropriation for Stark and Derryfield parks, \$158.73.

From appropriation for new highways to appropriation for South Main-street bridge, \$475.

From reserved fund to appropriation for repairs of buildings, \$150.

Passed November 9, 1894.

CITY OF MANCHESTER.

AN ORDER relating to the Merrill Cemetery, so-called.

Ordered, If the Board of Mayor and Aldermen concur : That the city of Manchester accept from the trustees and owners of the Merrill cemetery, so-called, situated at the junction of the Nutt and Merrill roads, a proper deed in trust, together with the transfer of such trust funds as are in the hands of the trustees,

and that said cemetery be, after the delivery of such deed and funds, managed and controlled by the board of trustees of cemeteries, subject to all the provisions of the laws and ordinances so far as the same may be applicable under the deed of trust. And the joint standing committee on commons and cemeteries is authorized to accept such deed to the city from the trustees and owners as may be proper to carry into effect the provisions of this order.

Passed December 4, 1894.

CITY OF MANCHESTER.

AN ORDER to erect certain Electric Lights.

Ordered, If the Board of Mayor and Aldermen concur: That the mayor and joint standing committee on lighting streets cause to be erected certain electric lights, as follows:

At the corner of Main and Wayne, Kelley and Alsace, Myrtle and Elm back street, Pearl and Oak, Harrison and Ash, Hall and Lowell, Laurel and Beacon, Liberty between North and Webster, East Spruce and Wilson, crossing Lawrence Railroad and Beech street, Montgomery and Conant, Wentworth and Bell, Silver and Wilson, Central and Canal, Beech and Young, the expense thereof to be charged to the appropriation for lighting streets.

Passed December 4, 1894.

CITY OF MANCHESTER.

AN ORDER providing for the pay of the Election Officers at the late Election.

Ordered, If the Board of Mayor and Aldermen concur: That the moderators of the several wards of the city, who acted in said capacity at the election just past in November, be paid for all

services in connection with elections the sum of five dollars per day for each day's service of eight hours per diem, the same to be inclusive of all pay for such services now provided for by ordinance.

That the ward clerks of the several wards, who acted as such at said election, be paid the sum of five dollars per day for each day's service of eight hours per diem, and the selectmen of the several wards be paid the sum of three dollars and fifty cents per day for each day's service of eight hours per diem, the same to be in addition to what is now provided by ordinance.

That all other election officers, who acted in said capacity at said election, be paid the sum of three dollars and fifty cents per day for each day's service of eight hours each, spent at the polling places in the several wards, the same to be inclusive of all pay for such services at such election now provided by ordinance or statute.

Passed December 4, 1894.

CITY OF MANCHESTER.

AN ORDER making a transfer of Money.

Ordered, If the Board of Mayor and Aldermen concur : That the city clerk be and hereby is authorized to make the following transfers, to wit :

From reserved fund to Pearl-street schoolhouse	\$316.80
From reserved fund to ward 9 schoolhouse	316.80
Total	<u>\$633.60</u>

Passed December 31, 1894.

CITY OF MANCHESTER.

AN ORDER relating to the Final Transfers for the Year 1894.

Ordered, If the Board of Mayor and Aldermen concur : That

the city clerk be and hereby is authorized to make the following transfers, to wit :

To reserved fund :

From interest	\$3,076.45
city hall	151.16
mayor's incidentals	136.70
auditor's department	231.94
repairs of highways	70.94
watering streets	15.92
paving streets	33.98
grading for concrete	39.77
scavenger service	1,119.44
street sweeping	77.25
lighting streets	1,776.08
bridges	99.68
repairs of sewers	798.39
health department	31.07
fuel	275.73
books and stationery	144.08
printing and advertising	37.92
contingent expenses	69.60
evening schools	264.39
evening school, mechanical drawing	107.60
free text-books	15.64
manual training	52.46
police department	200.00
addition Webster-street schoolhouse	152.16
Valley cemetery	26.98
other free cash in treasury not already appro- priated	<u>38,304.97</u>
Total	\$47,310.30

From reserved fund :

To printing and stationery	\$12.61
incidental expenses	1,615.57

To city officers' salaries	\$2,125.01
street and park commission	33.65
new highways	367.35
land taken for highways	6,597.67
macadamizing streets	165.99
city teams	698.40
engineer's department	716.72
repairs of schoolhouses	464.67
furniture and supplies	173.21
care of rooms	49.15
teachers' salaries	151.03
fire department	3,539.72
fire-alarm telegraph	533.88
repairs of buildings	614.71
schoolhouse, ward 9	102.99
Pearl-street schoolhouse	245.25
hosehouse, South Manchester	203.24
commons	3.46
Pine Grove cemetery	730.93
Amoskeag cemetery	4.24
paupers off the farm	2,866.88
city farm	486.35
indigent soldiers	42.00
abatement of taxes	1,415.63
Total	\$23,960.31

Passed December 31, 1894.

CITY OF MANCHESTER.

IN THE YEAR ONE THOUSAND EIGHT HUNDRED AND NINETY-FOUR.

AN ORDINANCE in amendment of chapter 31, sections 3 and 10,
of the City Ordinances.

Be it ordained by the Mayor, Aldermen, and Common Council

of the City of Manchester, in City Council assembled, as follows :

That chapter 31, section 3, of the City Ordinances relating to "Regulating hackney carriages, etc.," be amended by striking out the words "and driver" in the fifth line, so that the section as amended shall read :

"SECTION 3. Every carriage licensed as aforesaid shall be conspicuously marked with the number assigned to it by the mayor and aldermen, in metallic figures not less than one and a half inches long, and the name of the owner, the number of the carriage, and the rates of fare duly established, shall be conspicuously posted on a printed card in every such carriage."

And section 10 shall be amended by inserting the words at the beginning of the section "Every owner of carriages licensed as aforesaid shall be responsible for the acts of the driver thereof, and," so that the section shall read :

"SECTION 10. Every owner of carriages licensed as aforesaid shall be responsible for the acts of the driver thereof, and any persons licensed as aforesaid who shall violate any of the provisions of this ordinance, or any person who shall set up, employ, or use hackney carriages for the conveyance of persons for hire, from place to place within the limits of the city, without license, shall be fined not exceeding twenty dollars, or be imprisoned not exceeding thirty days."

Passed to be ordained February 6, 1894.

CITY OF MANCHESTER.

IN THE YEAR ONE THOUSAND EIGHT HUNDRED AND NINETY-FOUR.
AN ORDINANCE establishing the Compensation of the Members
of the Board of Police Commissioners.

Be it ordained by the Mayor, Aldermen, and Common Council
of the City of Manchester, in City Council assembled, as follows :

That the members of the board of police commissioners cre-

ated by the legislature at the January session, 1893, shall receive the following compensation, viz.: The chairman the sum of one hundred and fifty dollars (\$150); the other members the sum of one hundred dollars (\$100) each, all payable annually in the month of December.

Passed to be ordained February 6, 1894.

CITY OF MANCHESTER.

IN THE YEAR ONE THOUSAND EIGHT HUNDRED AND NINETY-FOUR.

AN ORDINANCE to change section 33, chapter 6.

Be it ordained by the Mayor, Aldermen, and Common Council of the City of Manchester, in City Council assembled, as follows:

That section 33, chapter 6, be amended by inserting the words "street and park commissioners" after the words "or either board thereof" in the eleventh line of said section, so that said section shall read as follows:

"SECTION 33. The civil engineer of the city shall have his office in the city hall; he shall, under the direction of the mayor and board of aldermen, have charge of all plans of public grounds, streets, sewers, and main drains belonging to the city. He shall, by himself or his assistant, for whom he shall be responsible, make all such surveys, estimates, admeasurements, and levels, and perform such other duties as may be required of him by the mayor, board of aldermen, or any committee of the city councils, or either board thereof, or the street and park commissioners. He shall make, collect, and file in his office, for the city, accurate plans of all public grounds, streets, sewers, and main drains, showing all entrances thereto and all estates abutting thereon, with their frontage and owners' names. He shall make or cause to be made complete and accurate plans of all public grounds, at present existing or that may hereafter be laid out; also complete and accurate plans of all changes and improve-

ments that may be made thereon, and keep said plans in his office. He shall also make or cause to be made, complete and accurate profiles of all public streets at present existing or that may hereafter be laid out, and shall draw on said profiles, lines to represent the proposed grade of sidewalks, on each side of said streets, and said proposed grade, when approved by the city councils, shall become the established grade of said streets, and said grade shall not be changed except by the city councils, and hereafter all abutters making improvements or building sidewalks within the limits of said street shall cause the same to conform to said established grade. All books and papers containing files, notes, and other memoranda shall be the property of the city."

Passed to be ordained March 6, 1894.

CITY OF MANCHESTER.

IN THE YEAR ONE THOUSAND EIGHT HUNDRED AND NINETY-FOUR.

AN ORDINANCE in amendment of section 20, chapter 6, of the Laws and Ordinances of the City of Manchester.

Be it ordained by the Mayor, Aldermen, and Common Council of the City of Manchester, in City Council assembled, as follows :

That section 20, chapter 6, be amended as follows : By striking out the words "seventy-five" in the twelfth line thereof and inserting the words "one hundred," so that said section shall read as follows :

"The board of overseers shall appoint one of their number clerk of the board, whose duty it shall be to record all the proceedings of the board, to make a record of all bills passed by the board, to notify all towns which may have paupers assisted by the city, to collect all bills due from such towns to the city, to arrange the county pauper bills, with a catalogue of the same, to be presented to the judges of the court at each term, and to

make a copy of such catalogue, to be kept with the records of the board. He shall receive in full for his services the sum of one hundred dollars per annum, to be paid in equal semi-annual payments."

Passed to be ordained April 3, 1894.

CITY OF MANCHESTER.

IN THE YEAR ONE THOUSAND EIGHT HUNDRED AND NINETY-FOUR.

AN ORDINANCE in amendment of chapter 38, City Ordinances.

Be it ordained by the Mayor, Aldermen, and Common Council of the City of Manchester, in City Council assembled, as follows :

That sections 1 and 3, chapter 38 of the City Ordinances, be amended as follows :

Add to section 1 : "And said registrar shall not grant to any undertaker any permit to bury the body of any person who shall die within the limits of the city until said registrar shall be furnished a certificate of some physician who shall have viewed the dead body, setting forth as nearly as he can the cause of death and the time of death. If the deceased person shall have been a county or a city charge, and no physician attended such person during the last illness of such person, then it shall be the duty of the city physician or of one of the physicians who may be a member of the board of health, at the request of the registrar, to view said dead body and make such certificate. And if there be any circumstance to arouse his suspicion that the death of such person has been caused by foul means, to report the facts to the mayor, that an inquest may be had." So that said section shall read as follows :

"SECTION 1. The city clerk shall be a registrar, whose duty it shall be, in addition to those now imposed by law, to receive, record, and index the following facts concerning the deaths in the city of Manchester, separately numbering and recording the same

in the order in which he receives them, designating in separate columns the date of death, name, sex, color, condition, whether single, widowed, or married, age, residence, occupation, place of birth, names and places of the birth of parents, cause of death and place of burial of the deceased, and date of record. And said registrar shall not grant to any undertaker any permit to bury the body of any person who shall die within the limits of this city until said registrar shall be furnished a certificate of some physician who shall have viewed the dead body, setting forth as nearly as he can the cause of death and time of death. If the deceased person shall have been a county or city charge, and no physician attended such person during the last illness of such person, then it shall be the duty of the city physician, or of one of the physicians who may be a member of the board of health, at the request of the registrar, to view said dead body and make such certificate. And if there be any circumstance to arouse his suspicion that the death of such person has been caused by foul means, to report the facts to the mayor, that an inquest may be had."

Section 3 shall be amended by striking out the words "twenty-five dollars" and inserting the words "twenty dollars," so that said section 3 shall read as follows :

"SECTION 3. The registrar is authorized to give permission for the burial and for the removal of dead bodies from the city, and no person shall bury or inter, or cause to be buried or interred or disinterred, entombed or disentombed, or shall have charge of the obsequies or funeral rites preliminary to the interment of a human body, or assist in the removal of a dead body for interment, without first having obtained permission to do so from the registrar ; and any person who shall violate this section, or the terms of the permit given by the registrar, shall be fined not more than twenty dollars nor less than five dollars."

Passed to be ordained April 3, 1894.

CITY OF MANCHESTER.

IN THE YEAR ONE THOUSAND EIGHT HUNDRED AND NINETY-FOUR.

AN ORDINANCE to regulate the Sale of Merchandise, Fruit, and Other Goods.

Be it ordained by the Mayor, Aldermen, and Common Council of the City of Manchester, in City Councils assembled, as follows :

That no person shall cry fruit, vegetables, or other goods for the purpose of selling or offering for sale such merchandise on any square, street, alley, lane, or avenue of the city.

Any person convicted of such offense shall pay a fine not exceeding twenty dollars.

Passed to be ordained April 3, 1894.

CITY OF MANCHESTER.

IN THE YEAR ONE THOUSAND EIGHT HUNDRED AND NINETY-FOUR.

AN ORDINANCE in amendment of chapter 6, section 14, of the City Ordinances.

Be it ordained by the Mayor, Aldermen, and Common Council of the City of Manchester, in City Council assembled, as follows :

That chapter 6, section 14, of the City Ordinances relating to the "duties and compensation of city officers" shall be amended by inserting the words "and sergeants" after the word "watch" in the first line, and changing the word "his" to "their" in the second line, so that the section as amended shall read as follows :

"SECTION 14. The captain of the watch and sergeants shall receive in full for their services two dollars and fifty cents per day."

Passed to be ordained April 3, 1894.

CITY OF MANCHESTER.

IN THE YEAR ONE THOUSAND EIGHT HUNDRED AND NINETY-FOUR.

AN ORDINANCE relating to Bicycles.

Be it ordained by the Mayor, Aldermen, and Common Council of the City of Manchester, in City Council assembled, as follows :

SECTION 1. Whoever, without the permit provided for in section 3 of this ordinance, rides in a public highway, street, square, or park a bicycle at a rate of speed exceeding eight miles an hour, or rides such machine on a sidewalk, or rides such machine in the streets, squares, or parks of the city when the same is not provided with a suitable alarm bell adapted for use by the rider, shall be punished by a fine not exceeding ten dollars for each offense, and shall be further liable for all damages occasioned to any person by such unlawful act.

SECT. 2. The term sidewalk, as used in this ordinance, shall mean any sidewalk laid out by the city in the city limits, and any walk in the city which is reserved by custom for the use of pedestrians, or which has been specially prepared for their use. It shall not include cross-walks, nor shall it include footpaths on portions of public ways lying outside the thickly settled parts of the city which are worn only by travel and are not improved by the city or the abutters.

SECT. 3. The mayor of the city or the park and street commissioners may, in their discretion, upon any special occasion grant permits to any person or persons to ride such machines during a specified time, upon specified portions of the public ways of the city, at any rate of speed, and may annex such other reasonable conditions to such permits as they shall deem proper. This is meant to include the use of bicycles by members of the fire department or in case of emergency.

This ordinance shall take effect upon its passage.

Passed to be ordained October 2, 1894.

CITY OF MANCHESTER.

IN THE YEAR ONE THOUSAND EIGHT HUNDRED AND NINETY-FOUR.

AN ORDINANCE in amendment of section 5, chapter 18, of the City Ordinances.

Be it ordained by the Mayor, Aldermen, and Common Council of the City of Manchester, in City Council assembled, as follows :

That section 5, chapter 18, be amended by inserting after the word "branches," in the last line of said section, "The board of street and park commissioners shall, upon receipt of notice from the city engineer that the license has been obtained, cause to be laid the Y branch in the city sewer and see that the connection is properly made, the owner of the abutting property to do all the work of excavation and furnish all labor with the exception of furnishing the Y branch and the placing the same in position. A location of the same shall be filed with the city engineer and recorded on the city's sewer plans," so that said section 5, chapter 18, shall read as follows :

"No person shall enter any drain or pipe into any of the sewers constructed by the city, without first obtaining a license therefor, and any person violating the provisions of this section shall be fined not less than one nor more than ten dollars, and a like penalty for every day he shall suffer such drain or pipe to continue so entered, after notice from the city clerk to disconnect the same. Before any license can be granted by the city clerk for a connection with a public sewer, or any house drainage put in or repairs made on them, a permit must be obtained of the city engineer, stating the frontage of the lot and the location of the same, with the plan proposed approved by him for the committee on sewers and drains. Such permit shall be made upon forms approved by the committee on sewers and drains and all connections with the city's sewers shall be made with Y branches. The board of street and park commissioners shall, upon receipt of notice from the city engineer that the

license has been obtained, cause to be laid the Y branch in the city sewer and see that the connection is properly made, the owner of the abutting property to do all the work of excavation and furnish all the labor with the exception of furnishing the Y branch and the placing the same in position. A location of the same shall be filed with the city engineer and recorded on the city's sewer plans."

Passed to be ordained November 9, 1894.

INDEX.

INDEX.

A

PAGE

Abatement on taxes.....	686
Assets, statement and inventory of.....	714
Annual interest charge on bonded debt.....	711
Auditor, city, report of.....	501
Auditor's department	545
Appropriations for 1894 by city councils.....	687
Appendix, school	216
Amoskeag cemetery.....	672

B

Bridges	575
Books and stationery	609
Buildings, repairs of	638
public, occupied by private parties	712
Board of water commissioners, organization of	42
report of.....	43
health, report of.....	351
Bonded debt	708, 710
tabular statement of.....	708
detailed statement of for 1894	710
annual interest charge.....	711

C

Churches, etc., valuation of, exempt from tax	697
City Hall.....	517
officers' salaries.....	528
teams	578
officials, list of	3
engineer, report of.....	379
engineer's department, organization of.....	380
solicitor, report of.....	329
City auditor's report.....	501
treasurer's report.....	502
councils, orders and ordinances.....	731

City physician, report of.....	335
auditor's department.....	545
farm.....	676
report of joint standing committee.....	323
library.....	617
report of trustees of.....	461
treasurer's report.....	468
librarian's report.....	474
donations to.....	479
Contingent expenses.....	610
Care of rooms.....	612
Commons.....	662
Cemetery, Pine Grove.....	665
Valley.....	669
Amoskeag.....	672
Cemeteries, report of sub-trustees of Valley.....	309
Pine Grove.....	308
treasurer of.....	312
treasurer of fund.....	304
report of trustees of fund.....	303
County tax.....	687

D

Debt, payment of funded.....	513
bonded, statement of.....	708-712
Decoration of soldiers' graves.....	686
Derryfield and Stark parks.....	664

E

Engine house and wardroom, ward 9.....	648
Engineer's department.....	593
Expenses, incidental.....	524
mayor's.....	537
contingent.....	610
Evening schools.....	613
school, mechanical drawing.....	615
Electric lights, location of.....	485
Elliot Hospital.....	685
Exempted from tax, property.....	697
Eaton Heights Shoe Company, resolution in relation to.....	736
Eureka Shoe Company, resolution in relation to.....	740

F

Fund, reserved.....	514
Fuel.....	604
Furniture and supplies.....	605
Free text-books.....	615
beds, Elliot Hospital.....	685

Fire department	620
report of chief engineer.....	247
value of personal property	285
names and residences of members.....	293
location fire-alarm boxes.....	274
Fire-alarm telegraph	630
Farm, paupers off.....	672
Farm, city.....	676

G

Grading for concrete.....	571
Graves, decoration of soldiers'.....	686
Gas-lights, location of	495

H

Highways, new.....	558
land taken for.....	562
watering.....	563
paving	566
macadamizing	568
grading for concrete on.....	571
scavenger service	573
sweeping	574
lighting.....	591
bridges	575
city teams	578
repairs of.....	549
Health department	597
board of, report of	351
Hospital, Women's Aid and Relief	685
Elliot, free beds.....	685
Sacred Heart.....	685
Hoschouse, South Manchester.....	649
Hydrant service.....	633
Hallsville schoolhouse.....	647

I

Interest	512
annual charge, bonded debt	711
Incidental expenses.....	524
Indigent soldiers.....	684
Inspector, milk, report of.....	339
Inventory of assets.....	714

L

Laws relating to exemptions.....	696
Loans, temporary.....	736, 737
Land taken for highways.....	562
Lighting streets.....	591
Library, city	617
Lincoln school curbing.....	648

M

Manual training.....	617
Mayor's incidentals.....	537
Macadamizing streets.....	568
Militia.....	686
Milk inspector, report of.....	339
Municipal receipts and expenditures.....	506
Manufacturing property exempt from taxation.....	707

N

New highways	558
--------------------	-----

O

Overseers of the poor, report of.....	317
Oil lamps, location of.....	496
Organization of school board for 1895.....	232
Ordinances and orders	731
Order relative to appropriation for decoration of soldiers' graves	750
to purchase horses for fire department....	747, 752
to build certain sewers	423, 424, 426, 427, 428, 429
to build certain streets.....	424, 426, 429
to erect watering-trough.....	751
to establish certain grades	423, 425
to change grade of Cartier street.....	427
to change grade of Valley street	427
to establish the grade of Harrison street.....	427
to establish the grade of Page, Kelley, Rimmon, and Dubuque streets	428
to establish the grade of Union and Sagamore streets...	429
to meet expense for proposed schoolhouse.....	753
relating to South Manchester hosehouse.....	743
to print forty-ninth report.....	2, 741
to purchase supply wagons.....	746, 748
relative to curbing at Lincoln school	749
to purchase hose.....	754
relative to changes in city hall.....	746
to make purchases at city farm.....	744
to erect certain electric lights.....	751, 753, 754, 756
to erect certain lamp posts.....	750
relating to wardroom and police station, West Manchester.....	742, 743
relating to team hire, street and park commission	742
for band concerts.....	748
providing pay for election officers	756
making transfer of money.....	745, 747, 748, 749, 750, 752, 755, 757
to purchase land for Pine Grove cemetery.....	747
to build Wentworth street.....	425
relating to ward 5 wardroom.....	744
to ward 2 wardroom	745
to premium on bonds	748

Order relating to pay of militia	752
to police matron	746
to Pearl-street school.....	754
to McGregorville schoolhouse	744, 755
to pay of police force.....	751, 753
to Merrill cemetery.....	755
Ordinance relating to bicycles.....	766
amending section 20, chapter 6.....	762
amending section 33, chapter 6.....	761
amending section 3, chapter 31	759
amending chapter 18, section 5.....	767
amending chapter 38... ..	763
amending chapter 6, section 14.....	765
establishing pay of police commissioners	760
regulating sale of merchandise	765

P

Payment of funded debt	513
Printing and stationery	521
and advertising.....	610
Paving streets	566
Police department....	633
Pine Grove cemetery.....	665
Paupers off the farm.....	672
Property account, real and personal.....	714
Public buildings occupied by private parties....	712
Park, Derryfield.....	664
Stark.....	664
Parsonages, valuation of, exempt from taxation.....	697
Pearl-street schoolhouse.....	644
Police commissioners, report of	345

R

Reserved fund.....	514
Repairs of schoolhouses.....	600
of buildings	638
Rooms, care of.....	612
Repairs of highways.....	549
of Vine-street hook-and-ladder house....	649
Resolutions, orders, and ordinances.....	731
on death of Auditor James B. Straw.....	735
relating to street railway	736
to bonds.....	733
to water bonds	737, 738
to Ainsworth avenue.....	739
for a joint special committee	740
in relation to South Manchester Building Association	739
in relation to Redman & Eaton Shoe Co.....	741
raising money and making appropriations for 1894.....	687

Report of Board of Water Commissioners	43
Superintendent of Water-works.....	48
City Engineer	379
Chief Engineer Fire Department	247
Trustees of City Library	461
Sub-Trustees of Valley cemetery.....	309
Pine Grove cemetery.....	308
Treasurer of Cemeteries.....	312
Treasurer of Cemetery Fund.....	304
Trustees of Cemetery Fund	303
Treasurer of Sinking Fund.....	727
Overseers of the Poor.....	317
Joint Standing Committee on City Farm	323
Street and Park Commission.....	107
Committee on Sewers and Drains.....	441
Committee on Streets.....	447
City Solicitor	329
Milk Inspector.....	339
School Committee	191
Superintendent	191
Board of Health	351
City Auditor.....	501
City Physician.....	335
City Treasurer.....	502
Police Commissioners.....	345
Real and personal estate owned by the city.....	714
property, exempt from taxation, other than public property.....	697
Rules, etc., relating to bills against the city (auditor's department)....	722
Receipts and expenditures, 1890, 1891, 1892, 1893, 1894.....	512
municipal, for 1894.....	506

S

Salaries of city officials.....	538
Scavenger service	573
Street sweeping.....	574
Street and park commission, report of.....	107
Sewers, repairs of.....	583
new.....	585
School department, organization of.....	232
evening, mechanical drawing	615
committee, report of	191
superintendent's report.....	191
Schoolhouse, Hallsville.....	647
ward 9.....	646
Webster-street, addition to.....	647
Schoolhouses, parochial, and seminaries of learning....	697
repairs of.....	600
Salaries, teachers'.....	614
Street and park commission.....	547
Snow and ice.....	556

South Main-street bridge.....	577
Stark and Derryfield parks.....	664
Soldiers, indigent.....	684
State tax.....	686
Solicitor, city, report of.....	329
Statement of bonded debt	710
public buildings occupied by private parties.....	712
Sinking fund	514
treasurer's report.....	727
Sacred Heart Hospital.....	685
Summary of city debt.....	708, 712

T

Temporary loan.....	516
Text-books, free.....	615
Teachers' salaries.....	614
Taxes, abatement of.....	686
Tax, state.....	686
county	687
Treasurer, city, report of.....	502
Taxation, appropriations for 1894	687
exemption	697
by board of assessors.....	691
statement of total.....	692
table of taxes due and uncollected.....	693
valuations from 1890 to 1894, inclusive	694
settlement of tax collector's account to June 1, 1894.....	694
Teams, city	578
Tabular statement of receipts and expenditures.....	512
Training, manual.....	617

V

Valley cemetery.....	669
Valuation and taxes.....	691
Valedictory address, Mayor Knowlton	29
Mayor Worthen.....	37

W

Watering streets.....	563
Women's Aid and Relief Hospital.....	685
Water-works, superintendent's report.....	48
commissioners' report.....	41-43
expenses	650
Wardroom and engine house, ward 9.....	648
Ward 5 wardroom	643



